2022

Quality Corporate Risk Disclosure and determinants among listed non-financial firms in Kenya.

Mbithi, Erastus Musembi
Strathmore University Business School
Strathmore University

Quality Corporate Risk Disclosure and Determinants among Listed Non-Financial Firms in Kenya

Erastus Musembi Mbithi

072016

Doctor of Philosophy

2022

Quality Corporate Risk Disclosure and Determinants among Listed Non-financial firms in Kenya

Erastus Musembi Mbithi

072016

A thesis submitted in total fulfilment of the requirements for the Degree of Doctor of Philosophy in Accounting at Strathmore University

Strathmore University Business School

Strathmore University

Nairobi, Kenya

July, 2022

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Erastus Musembi Mbithi

Signed: .....

Date: 10th October 2021

Approval

The thesis of Erastus Musembi Mbithi was reviewed and approved by the following:

Prof. David Wang'ombe
Strathmore University Business School
Strathmore University

Prof. Tankiso Moloi
School of Accountancy
University of Johannesburg

Dr. Angela Ndunge
Executive Dean, Strathmore University Business School

Dr. Bernard Shibwabo
Director, Office of Graduate Studies

ABSTRACT

The recent occurrence of financial crisis and cases of corporate failure around the globe have heightened the demand for High-Quality Corporate Risk Disclosure (HQCRD). To meet this expectation, companies must demonstrate their stewardship to stakeholders by providing useful risk information. Nonetheless, concerns have been raised about the quality of Corporate Risk Disclosure (CRD) in developing countries. The study sought to identify factors explaining CRD behaviour in Kenya. The purpose is achieved by first establishing the meaning of the construct HQCRD to determine elements that constitute high-quality CRD. Secondly, it establishes the determinants of high-quality CRD to establish the applicability of multi-theoretical lens in explaining CRD behaviour, and, thirdly, exploring the moderating effect of the Kenya Companies Act of 2015 on the determinants of high-quality CRD. The study adopted a mixed-methods research design, specifically an explanatory sequential design. On one hand, quantitative analysis targeted listed non-financial firms in Kenya over the period 2008-2019 using panel data regression techniques. On the other hand, qualitative analysis targeted the preparers and users of the annual report through semi-structured interviews. The findings indicate that CRD quality is low and dispersed across the sampled firms in Kenya. This suggests that stakeholders seeking high-quality CRD in Kenya will not find annual reports sufficient to address their needs. The results of panel data regression indicate that firm size, leverage, firm growth, operating risk, board activity, board independence, foreign ownership and block ownership influence the quality of CRD (weighted measure). This confirms that CRD is complex as explained by a multiplicity of factors needed to achieve high quality. In addition, it confirms support for multi-theoretical lens proposed in the literature to study CRD in Kenya. These theories include agency theory, signalling theory, stakeholder theory, resource dependence theory, institutional theory and legitimacy theory. Furthermore, the results of qualitative analysis are mixed; some support quantitative results while others contradict them. Regarding the moderating role, implementation of the Kenya Companies Act of 2015 neutralised the effect of firm size and block ownership on CRD, whilst leverage, firm growth, operating risk, board independence and foreign ownership strengthened after the implementation. The study extends our understanding of CRD in several ways; first, by providing a common understanding of the meaning of CRD among stakeholders; secondly, by demonstrating the corporate determinants of CRD, particularly the moderating role of the Companies Act 2015, and thirdly, assessing the applicability of multi-theoretical lens in explaining CRD behaviour. The results will help policymakers and practitioners to understand the risk reporting needs of capital market participants, and potentially develop an informed mechanism to improve the quality of CRD. The study relied on extant literature and guidelines to develop the indices. However, the guidelines keep on changing as a result of considering other better ways of reporting. Thus, the results should be interpreted with caution because quality is dynamic. Future research should consider recent changes in guidelines and literature.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
AfDB	African Development Bank
ASIC	Australian Securities and Investments Commission
CA ANZ	Chartered Accountants Australia and New Zealand
CACG	Commonwealth Association for Corporate Governance
CBK	Central Bank of Kenya
CBRD	Corporate Business Risk Disclosure
CCG	Centre for Corporate Governance
CDSC	Central Depository and Settlement Corporation
CFA	Certified Financial Analyst
CFRD	Corporate Financial Risk Disclosure
CMA	Capital Market Authority Kenya
COSO	Committee of Sponsoring Organizations of the Treadway Commission
COVID-19	Corona Virus Disease 2019
CRDI	Corporate Risk Disclosure Index
CRDIU	Corporate Risk Disclosure Index Unweighted
CRDIW	Corporate Risk Disclosure Index Weighted
CSRD	Corporate Strategic Risk Disclosure
FRC	Financial Reporting Council
FRR	Financial Reporting Release
GAAP	Generally Accepted Accounting Principles
GAS	German Accounting Standards
GAS-5	German Accounting Standard-5
GASB	German Accounting Standard Board
GCC	Gulf Cooperation Council
GRI	Global Reporting Initiative
GSSB	Global Sustainability Standards Board
HQCRD	High-Quality Corporate Risk Disclosure
IAS	International Accounting Standards
IASB	International Accounting Standards Board
ICEAW	Institute of Chartered Accountants in England and Wales
ICPAK	Institute of Certified Public Accountants
IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Council
IRA	Insurance Regulatory Authority
KNBS	Kenya National Bureau of Statistics
MD&A	Management Discussion and Analysis
MENA	Middle East and North Africa
NCPD	National Council for Population and Development
NSE	Nairobi Securities Exchange
OECD	Organisation for Economic Co-operation and Development
OFR	Operating and Financial Review
RBA	Retirement Benefits Authority
SASRA	Sacco Societies Regulatory Authority
SEC	Securities and Exchange Commission
UNCTAD	United Nations Conference for Trade & Development

ACKNOWLEDGEMENTS

First, I would like to thank the almighty God for giving me good health during the study period. Second, my infinite gratitude to Professor David Wang'ombe and Professor Tankiso Moloi for their constant motivation, inspiration, guidance, encouragement and constructive feedback during the study. Third, I sincerely thank Strathmore University for granting me an opportunity to undertake the study. Fourth, special appreciation goes to the Global Business School Network (GBSN) for sponsoring the Global School in Research Methods (GSERM) program at the University of St. Gallen, Switzerland. Fifth, I wish to thank the organisers and participants of the International Conference of Accounting and Business (iCAB) held at the University of Johannesburg, South Africa for insightful feedback.

Sixth, to my research assistants and interviewees who agreed to be part of the study, feel appreciated. Seventh, thanks to Duncan Mnyogha, Rosebell Wanja and Dr. Nhlanhla Landa from the University of Fort Hare in South Africa for proofreading this work. Many thanks also to my colleagues: Dr. David Mathuva, Dr. Mumbi Maria, Dr. Diana Ominde, Albert Ochieng, Mary Aminga, Sarah Muigai, Tabitha Njuguna, Carol Ger, Felix Mogesa, and many others for their support during the study. More importantly, I would like to thank my parents, Peter Mbithi and Janet Mbithi, my sisters Emma Muthoki and Eva Munini, my brother James Mumo, my nieces, Joy and Grace, and my spiritual parents, Father John Nzau of St. Peter's Catholic Church and Brother Lawrence Munyao of the Capuchin Franciscans, for their prayers, love, and encouragement. Last but not least, sincere thanks to my wife, Rosebell, and my daughters, Thando and Tanya, for their patience, sacrifice, and inspiration during the study.

DEDICATION

This thesis is dedicated to my dear wife Rosebell Wanja, and my daughters Joan Thando and Julie Tanya. Thank you for your understanding, support and unconditional love during the period of my study and beyond. As I struggled through the study, two bible verses encouraged and motivated me that "weeping may endure for a night, but joy comes in the morning" (Psalm 30:5). Also, "be strong and courageous, do not be terrified; do not be discouraged, for the LORD your God will be with you wherever you go" (Joshua 1:9).

CHAPTER ONE
INTRODUCTION

1.1 Background of the study

The recent occurrence of the financial crisis and cases of corporate failure around the globe have caused widespread instability and concerns in major financial markets (Buckby et al., 2015; Elamer et al., 2019a; Khandelwal et al., 2020; Saggar et al., 2021). Prominent among the concerns have been criticisms of inadequate risk disclosure, particularly those relating to risk management activities in the annual report (Elshandidy et al., 2018; Jain & Raithatha, 2021; Gonidakis et al., 2020). Inadequate risk disclosure contributes to the mispricing of risks and affects investors' ability to signal weak companies before the crisis (Mokhtar & Mellett, 2013; Abraham & Shrives, 2014; Grassa et al., 2020). These disclosure shortcomings highlight the need for transparency and sound risk management practices among listed firms.

In response to the call for transparency, regulators and standard setters developed guidelines to help managers disclose risks faced by their organisations (Dobler et al., 2011; Bamber & McMeeking, 2015; Almania, 2019). Such guidelines include Financial Reporting Release (FRR) No. 48, German Accounting Standard (GAS) 5, Finnish Accounting Act, International Financial Reporting Standards (IFRS) 7, Kings Report IV and Integrated Reporting, among others (Ibrahim et al., 2019). Similarly, numerous disclosure concepts emerged; for instance, Operating and Financial Review, Management Discussion and Analysis, Sustainability Reports, Business Review and Integrated Reports, among others. As a result, CRD practice has evolved from heavy reliance on financial information to the inclusion of non-financial information to serve the ever-widening needs of users (ACCA, 2014; Guthrie et al., 2020; Veltri, 2020).

Notwithstanding the significant development in CRD guidelines and growth in reporting, there is no consensus among stakeholders on how risk should be communicated (Elshandidy & Neri, 2015; ACCA, 2014; Elshandidy et al., 2018; Jain & Raithatha, 2021). Equally, concerns have been raised about the information gap between what companies are disclosing, and what investors and other users want to see from the annual report (Mokhtar & Mellett, 2013; ACCA, 2014; UNCTAD, 2017; Gonidakis et al., 2020). The management's ability to bridge the gap and serve stakeholders' needs depends on the quality of CRD.

1.2 Research Motivation

1.2.1 Meaning and measurement of CRD

The need for high-quality CRD has dominated the policy agenda among standard setters, regulators, practitioners and academicians (ACCA, 2014; Ntim et al., 2013; UNCTAD, 2017; Ott, 2020; Khandelwal et al., 2020). Despite the increased attention on CRD, there are divergent views as to what constitutes "high-quality CRD". The differing views may be partly explained by the vagueness with which the term "corporate risk disclosure" has been understood (Elzahar & Hussainey, 2012; Kiflee & Ali Khan, 2021; Mbithi et al., 2022b). For instance, practitioners engage in CRD practice without announcing their definition of risk (Ibrahim & Hussainey, 2019). Likewise, regulators and standard setters have not explicitly defined CRD (Ibrahim & Hussainey, 2019). In addition, the CRD guidelines vary in nature, with potential overlaps that hinder accurate interpretation (Elshandidy et al., 2018). This is further compounded by the absence of mandatory disclosure guidelines akin to IFRS and US GAAP (Elshandidy et al., 2018; Abhayawansa & Adams, 2021).

Equally, researchers have not provided a universally accepted concept of risk; instead, they use different phrases that contribute to lack of clarity (Elshandidy et al., 2018). Similarly, researchers have not provided an unequivocal definition of CRD and they assume the reader is aware of what they mean. Failing to define the term leaves the reader confused (Ibrahim & Hussainey, 2019). Besides, those who define do so from two divergent perspectives, namely pre-modern and modern (Ibrahim & Hussainey, 2019). This implies that the quality of CRD based on the pre-modern view is different from the quality based on the modern view. Consequently, the measure of such quality might be different, even though there could be some similarities (Mbithi et al., 2022b). Furthermore, researchers have assumed that such quality is a continuum that varies from low to high end termed “high-quality CRD”.

The subject “high quality” is widely studied in accounting literature (Wangombe, 2013). For instance, McFie (2006) uses the term “high-quality” to denote excellence in setting standards and preparing reports. In the same circuit, Wangombe (2013) uses the term “high quality” to denote excellence in environmental reporting using an index that tracks recent literature and framework. However, in the risk reporting context, researchers have not provided a universal meaning of high quality. Moreover, researchers employ different methods and techniques to measure the quality of CRD (Elshandidy et al., 2018; Ibrahim & Hussainey, 2019), resulting in variation in CRD practice across firms and countries. Such variation impairs comparability

among researchers and adds little to the improvement of CRD practice. Indeed, for CRD to serve its purpose, there is need for clarity in the definition and measurement of CRD among stakeholders (Elshandidy et al., 2018; Ibrahim & Hussainey, 2019). Thus, the present study responds to this call by using meaning-oriented content analysis to measure the quality of CRD in Kenya. The measure developed is based on FRC (2018), Linsley and Shrives (2006), Ntim et al. (2013), Shivaani et al. (2019), Grassa et al. (2020) and Salem et al. (2019).

1.2.2 Theoretical perspectives for studying CRD

Despite the elaborate literature on CRD, there is no comprehensive framework that can be used to explain and establish ways in which CRD quality is achieved (Ntim et al., 2013; Oliveira et al., 2013). Prior studies used a number of theories, including agency, signalling, resource-dependence, stakeholder, legitimacy and institutional (Amran et al., 2008; Ntim et al., 2013; Tauringana & Chithambo, 2016; Bufarwa et al., 2020; Mbithi et al., 2022b). However, no single theory can explain CRD quality in totality and the literature calls for a multi-theoretical framework. In addition, each theory presents context-specific findings (Ntim et al., 2013; Abraham & Shrives, 2014; Elshandidy et al., 2018), leading to inconsistency among researchers. In this regard, the present study responds to this call by using a multi-theoretical approach to study CRD among listed non-financial firms in Kenya (Ntim et al., 2013; Oliveira et al., 2013).

The integrated framework provides richer insights into understanding the quality of CRD and its multi-dimensional associations with corporate characteristics (Carpenter & Feroz, 1992; Elzahar & Hussainey, 2012). Whilst prior studies have attempted the multi-theoretical approach (Mokhtar & Mellett, 2013; Ntim et al., 2013), such studies were carried out in developed and frontier markets (Jain & Raithatha, 2021; Al-dubai & Abdelhalim, 2021). Besides, the combinations of the theories vary (Dominguez-blanco, 2020; Mbithi et al., 2022b). Furthermore, Salem et al. (2019) and Mbithi et al. (2022a) call for studies in developing countries to establish the existing quality of CRD. The proposed framework consists of the commonly used theories, namely agency theory, signalling theory, resource dependence theory, stakeholder theory, legitimacy theory and institutional theory.

1.2.3 Determinants of quality of CRD

Notwithstanding the growing literature on CRD, studies have not provided conclusive determinants of its quality (Elshandidy & Shrives, 2016; Tauringana & Chithambo, 2016; Elshandidy et al., 2018; Ott, 2020; Khandelwal et al., 2020; Saggar et al., 2021). The difference in findings may be attributed to variation in CRD worldwide, leading to variation in the way its quality is understood and measured (Elshandidy et al., 2018). For instance, some studies use quantity as a proxy for quality, leading to interpretational difficulties (Beretta & Bozzolan, 2008; Khlif & Hussainey, 2016; Salem et al., 2019; Al Lawati et al., 2021).

In addition, worldwide, the difference in findings is intensified by absence of mandatory guidelines on CRD akin to IFRS (Elshandidy et al., 2018). It is worth noting that CRD guidelines vary from voluntary to mandatory (Mazumder & Hossain, 2018; Elshandidy et al., 2018). Moreover, there is absence of a uniform and comprehensive perspective to study CRD (Ntim et al., 2013; Mbithi et al., 2020). Such difference in determinants hinders comparability and adds little to the improvement of CRD practice. To encourage meaningful policy implications, there is need for reconciliation among researchers. The present study responds to the call by minimising diversity in the measurement and using a multi-theoretical framework to study CRD. Such findings will help policymakers to make informed decisions and firms identify characteristics that will help them attain high-quality CRD.

1.2.4 CRD practice in Kenya: Initiatives and challenges

The accounting profession in Kenya is governed by the Accountant Act 1978 and the Companies Act 1962 (McFie, 2006). The Accountant Act was enacted on the 1st of July 1977, replaced in 2008 and revised in 2020 under CAP 531 laws of Kenya. In 1999, Kenya adopted International Financial Reporting Standards (IFRS) from the International Accounting Standards Board (IASB), then referred to as the International Accounting standard (IAS) to enhance transparency and uniformity in corporate reporting (McFie, 2006; World Bank, 2010). The IASB provides several standards to guide CRD practice, namely IAS 30 (1990), IAS 32 (1996), IFRS 7 (2006) and IFRS 9 (2018) (Ibrahim et al., 2019). IAS 30 focuses on financial statement disclosures in financial institutions while IAS 32 focuses on financial instruments presentation. Both IAS 30 and IAS 32 do not encompass all risk categories. IFRS 7 was introduced to replace the disclosure requirements under IAS 30 and IAS 32. IFRS 7 covers the disclosure of financial risks (credit, market, liquidity and hedging activities) faced

by both financial and non-financial firms. More recently, IFRS 9 was enacted to guide the disclosure of credit risk using a new impairment model. Notwithstanding the usefulness of IASB standards, they ignore non-financial risks (Ibrahim et al., 2019). More importantly, the COVID-19 pandemic has demonstrated that non-financial risks can be severe to business and humanity if not managed (Gelter & Puaschunder, 2021). Therefore, there is need for a holistic approach to risk management to navigate today's environment. In this regard, the IASB standards are not sufficient to guide CRD practice among public listed firms.

Locally, notable efforts have been made by professional bodies, standard setters and regulators to encourage listed firms to improve CRD. For instance, the Institute of Certified Public Accountants (ICPAK) in collaboration with the Capital Market Authority Kenya (CMA) and the Nairobi Securities Exchange (NSE) recognise risk reporting as one of the elements of their annual Financial Reporting (FiRe) excellence award (ICPAK, 2013). Similarly, the Kenya Companies Act 2015 sets out the general framework for risk reporting, the Act mandates listed firms to provide balanced and comprehensive disclosure of principal risks/uncertainties under the Business Review (Government of Kenya, 2015b). Likewise, the CMA Code of Governance was amended to reflect the change in the Kenya Companies Act 2015 (CMA, 2015). The Code requires listed companies to define their mission, strategy, goals, risk policy and objectives. In addition, the Code mandates firms to identify principal risks and uncertainties as well as measures put in place to manage such risks (CMA, 2015).

Furthermore, the Mwongozo Code of Governance was enacted in 2014 to address matters of CRD among state-owned corporations (SOE). The Code requires SOEs to disclose risks arising from their operating environment and risk management policy. In the same vein, SOEs should provide complete, timely, relevant, accurate and accessible disclosures (Government of Kenya, 2015a). Notwithstanding the CRD initiatives in Kenya, the results of a preliminary study by the researcher revealed that such disclosures appear unstructured. This complicates efforts by investors when assessing a company's risk profile and stewardship (CFA Institute, 2016; UNCTAD, 2017). Moreover, it raises a fundamental question in the literature on what drives CRD practice among listed firms in Kenya. The present study examined the existing quality of CRD and its determinants. The study also examined the moderating influence of the Kenya Companies Act on the quality of CRD and its determinants.

1.3 Statement of the problem

High-quality CRD has become an expectation for various stakeholders after episodes of financial distress and unexpected corporate failures (Elshandidy et al., 2018; Ibrahim et al., 2019; Jain & Raithatha, 2021). The increased expectation is based on the supposition that insufficient risk disclosure leads to mispricing of risk, misallocation of capital and impairs investors' capacity to exercise timely market discipline (Mokhtar & Mellett, 2013; CFA Institute, 2016; Grassa et al., 2020). Similarly, high-quality CRD is important for capital market performance and financial sector stability (UNCTAD, 2017; Grassa et al., 2020). Besides, well-functioning capital markets and efficient allocation of risk capital are vital for achieving economic growth and Sustainable Development Goals (SDGs) (UNCTAD, 2017).

Notwithstanding the usefulness of high-quality CRD, concerns have been raised about the information gap between what companies are disclosing and what investors and other users want to see in the report (ACCA, 2014; UNCTAD, 2017; Jain & Raithatha, 2021). Equally, the current CRD environment is ambiguous, with potential overlaps among the guidelines that hinder accurate interpretation. This results in a claim for diversity in CRD practice among firms, thus, complicating investors' efforts to assess risks (CFA Institute, 2016). If CRD practice is to serve the needs of stakeholders, there is need to balance between the information reported by preparers and the wishes of users.

The management's ability to bridge the information gap depends on the quality of risk information disclosed. However, what is meant by quality? How can it be achieved? If it can be achieved, what characteristics do these companies exhibit? If it cannot be achieved, how can companies be assisted to achieve high quality? Measuring the quality of CRD entails establishing a point along the continuum between zero and perfect quality termed "high-quality CRD". Nevertheless, the extant CRD literature has approached the subject of quality assuming it is a continuum that varies from low to high end. Such studies have reported variation in the extent and nature of risk disclosure across firms within the same industry and country over time (Miihkinen, 2012; Elshandidy & Neri, 2015; Jia et al., 2016; Elshandidy et al., 2018).

Based on the foregoing, if companies were to achieve high-quality CRD akin to high-quality financial reporting (McFie, 2006) and high-quality environmental reporting (Wangombe, 2013), such attempts should start with establishing an understanding of the meaning of the

term high-quality CRD. Thus, the present study seeks to establish a common understanding of the meaning of "high-quality CRD" among stakeholders to ensure that the wishes of users and concerns of preparers are taken into account, and to identify the generally acceptable determinants of CRD that can help companies attain high-quality.

1.4 General research objective

To establish the meaning of the term "high-quality CRD" and its association with corporate characteristics among listed non-financial firms in Kenya.

1.4.1 Specific research objectives

1) To assess the quality of CRD among listed non-financial firms in Kenya;
2) To establish the association between CRD and corporate characteristics among listed non-financial firms in Kenya;
3) To establish the moderating effect of the Kenya Companies Act of 2015 on CRD determinants among listed non-financial firms in Kenya;
4) To ascertain the preparers' reasons for the practice of CRD among non-financial firms in Kenya;
5) To determine the stakeholders' understanding of the meaning of high-quality CRD among listed non-financial firms in Kenya.

1.4.2 Specific research questions

1) What is meant by high-quality CRD among listed non-financial firms in Kenya?
2) What is the quality of CRD among listed non-financial firms in Kenya?
3) Is there any association between the quality of CRD and company characteristics among listed non-financial firms in Kenya?
4) Is there a moderating effect of the Kenya Companies Act of 2015 on CRD determinants among listed non-financial firms in Kenya?
5) Which disclosure theories could be applied to explain the quality of CRD among listed non-financial firms in Kenya?
6) What are the preparers' reasons for CRD among listed non-financial firms in Kenya?
7) What is the stakeholders' perception of the meaning of high-quality CRD among listed non-financial firms in Kenya?

1.5 Significance of the study

1.5.1 Firm management

The findings of this study are useful to a firm's management when making disclosure policy decisions. Since risk disclosure may lead to proprietary and preparation costs, firms must assess the benefits versus costs of disclosing risk information. The CRD measure developed can be used by managers to determine their disclosure level. In addition, the findings will help to improve transparency in communication between stakeholders and management.

1.5.2 Financial analysts and investors

The findings of the current study are useful to financial analysts who act as financial intermediaries between the management and investors. The findings will help them in assessing the risk profile of companies, transparency and company stewardship. Likewise, the proposed measure for CRD quality will help financial analysts and investors signal weak companies in advance and provide market discipline before a crisis.

1.5.3 Regulators and policymakers

The study is useful to regulators and policymakers to understand the current risk disclosure environment, barriers to better risk disclosure, wishes of users and concerns of preparers. The findings will help regulators to understand the risk reporting needs of capital market participants and potentially develop an informed mechanism to improve the quality of CRD among listed firms. In addition, the heterogeneity in CRD practices is useful to regulators when monitoring trends in transparency and accountability among listed non-financial firms in Kenya. In addition, the study provides input into the review of existing CRD guidelines.

1.5.4 Researchers and scholars

The study extends risk disclosure literature by developing a measure that can be used to establish risk disclosure levels among listed non-financial firms in Kenya. This provides insights into corporate characteristics that drive risk disclosure quality among listed firms in Kenya. Moreover, the study contributes to the literature by examining the moderating effect of the Kenya Companies Act of 2015 on CRD determinants by listed non-financial firms in Kenya.

1.6 Scope of the study

The study targeted the NSE listed non-financial companies from 2008 to 2019. Consistent with previous studies, the present study excluded financial institutions because they are highly regulated and they are subject to different and specialised guidelines (Bozzolan & Miihkinen, 2019; Linsley & Shrives, 2006; Oliveira et al., 2018; Kiflee & Ali Khan, 2021). Examples of specialised guidelines are the prudential guidelines from the Central Bank of Kenya, the Banking Act for banks and the Insurance Act for insurance companies. The study examined the following variables; firm-specific factors (firm size, leverage, profitability, liquidity, firm growth, capital expenditure and operating risk), board characteristics (board activity, board size, board gender diversity and board independence) and ownership structure (managerial ownership, retail ownership, foreign ownership, block ownership and government ownership). The control variables such as audit quality, cross-listing, corporate governance quality and industry type were included. The study also investigated the regulatory influence of the Kenya Companies Act of 2015 on the association between corporate determinants and the quality of CRD.

1.7 Organisation of the study

The remainder of the study is organized as follows; chapter two presents the review of literature on the meaning of high-quality CRD. The chapter begins with a review of different CRD guidelines across the globe and how researchers have applied different frameworks to study the quality of CRD. Chapter three provides the context of the research and the context in which the findings will be interpreted. Chapter four presents the theoretical lens for explaining and predicting CRD behaviour. Chapter five presents the formulation and development of the research hypothesis. Chapter six presents the research methodology; the chapter discusses the philosophical assumptions, research validity, research reliability, target population, data collection and research instruments, data processing and analysis. Chapter seven presents results of the quality of CRD among listed non-financial companies in Kenya. Chapter eight presents the results of bivariate and multivariate analysis on the association between the quality of CRD and corporate characteristics. Chapter nine presents stakeholders' reasons for the practice of CRD. The chapter ends with a comparison between quantitative and qualitative results. Chapter ten summarises the main findings and conclusions. The chapter also provides a revised definition of high-quality CRD. Furthermore, the chapter presents the research implications, contributions, limitations and suggestions for further research.

CHAPTER TWO

MEANING AND MEASUREMENT OF CRD

2.1 Introduction

In this chapter, the study sought to establish a common understanding among stakeholders about the meaning and measurement of high-quality CRD. First, the chapter provides a review of existing CRD guidelines to understand the meaning of high-quality CRD from the eyes of policymakers. Secondly, the chapter provides a review of existing empirical literature to understand how academicians and scholars have applied different frameworks in defining and measuring the quality of CRD. Thirdly, the chapter ends with a tentative definition of high-quality CRD merging the perspectives of academicians with those of policymakers. The chapter is organised as follows: Section 2.1 is the introduction; Section 2.2 provides a review of CRD reforms and guidelines; Section 2.3 is a summary review of guidelines; Section 2.4 presents a review of the existing empirical literature on how academicians have applied different guidelines in the measurement of quality; Section 2.5 is summary of the meaning of high-quality CRD, and Section 2.6 presents the chapter summary.

2.2 CRD Reforms and regulatory frameworks

Despite the continuous call for improved CRD worldwide, there is less consensus on how and to what extent the practice should be communicated (ACCA, 2014; Buckby et al., 2015; Elshandidy et al., 2018). This is partly attributed to the absence of a mandatory risk reporting framework, leading to variation in quality across companies and countries over time (ACCA, 2014; Buckby et al., 2015; Elshandidy et al., 2018). The such variation adds little to the improvement of CRD practice. In addition, it impairs the comparability of findings among researchers. To enhance uniformity and improvement of CRD practice, policymakers, regulators and standard setters around the globe have developed guidelines. For instance, Securities and Exchange Commission (SEC), German Accounting Standard Board (GASB), Finnish Accounting Board, Australian Securities and Investments Commission (ASIC), King Committee, International Accounting Standard Board (IASB), Global Sustainability Standards Board (GSSB), International Integrated Reporting Council (IIRC), and Financial Reporting Council (FRC), among others. The guidelines are reviewed in the following sub-sections to understand how accounting standard setters, regulators and policymakers define the quality of CRD and how such quality has evolved.

2.2.1 Securities and Exchange Commission

The Securities and Exchange Commission (SEC) in the United States (US) issued Financial Reporting Release (FRR) No. 48 on corporate risk reporting in 1997 (Ibrahim et al., 2019). The FRR No. 48 required listed firms to disclose market risks arising from their financial instruments. In December 2005, the SEC expanded FRR No. 48 to obligate listed companies to provide comprehensive disclosure of significant risks facing them under the "10-K section, specifically in the IA-Risk Factor section (Wahlen et al., 2014). The FRR No. 48 requires companies to provide concise, specific and organised risk disclosures in the annual report. Although FRR 48 provides mandatory disclosure of risk, some companies disclose risk information voluntarily in the Management Discussion and Analysis (MD&A) (Ibrahim et al., 2019). The MD&A section presents the performance of the company from the eyes of the management. The section requires companies to disclose significant risks and uncertainties that may affect their financial performance. The guideline was designed to elicit an informative and transparent risk narrative that satisfies the principal objectives of MD&A. Similarly, the MD&A proposed three qualitative attributes of risk information, namely comprehensive, complete and free from bias.

2.2.2 German Accounting Standards Board

The German Accounting Standard Board (GASB) issued GAS 5 on corporate risk reporting in 2001 (Ibrahim et al., 2019). GAS 5 provides a risk disclosure framework for listed firms in the annual report. According to GAS 5, listed firms should provide information about the risk management system, qualitative and quantitative data on relevant risks, risk categories, risk policy and risk treatment measures (Ibrahim et al., 2019). GAS 5 mandates listed companies to provide risk information that allows users to form an appropriate understanding of risks affecting the future developments of a group. GAS 5 also requires that risk and risk-related disclosures should be made in a specific section (Risk and Opportunities or Outlook) of the annual report (Elshandidy et al., 2015). According to GAS 5, the main objective of risk reporting is to provide the users with information that is reliable and relevant for decision-making. The two quality attributes suggested by GAS 5 resemble IASB qualitative attributes. Moreover, GAS-5 is more comprehensive than SEC guidelines because it covers many risk types and categories (Miihkinen, 2013).

2.2.3 Finnish Accounting Board

In Finland, the Finnish Accounting Board issued the first guideline on risk disclosure under the Operating and Financial Review (OFR) in 2006 (Miihkinen, 2012; Bozzolan & Miihkinen, 2019). This is consistent with the Finnish Accounting Act, which was enacted in 2004 to help listed firms in Finland provide risk disclosures in the annual report (Martikainen et al., 2015). The Finnish guideline mandates listed companies to provide a balanced description of risks in the annual report (Miihkinen, 2012). Like in Germany, the CRD practice in Finland is highly regulated. However, the Finnish risk guideline is considered more comprehensive than the SEC and GAS 5. This is because it not only provides specific risk disclosures but also includes illustrative risk disclosure examples (Miihkinen, 2012). Furthermore, unlike the SEC and GAS 5, the Finnish risk disclosure guideline provides a more explicit framework for different risks in a balanced manner (Miihkinen, 2013). This facilitates accurate interpretation by managers and it minimises their discretion when deciding the depth and breadth of risk information.

2.2.4 Australian Securities and Investments Commission

In Australia, the Australian Securities and Investments Commission (ASIC) requires listed firms to disclose risks under the Operating and Financial Review (OFR) section. The framework supplements and complements information contained in the entity's annual report. ASIC (2013) states that high-quality OFR is important in meeting the information needs of current and prospective investors. ASIC (2013) states that OFR should contain a discussion of the risks that could affect the entity's achievement of financial prospects, taking into account the nature of the business entity and its strategy. Moreover, the OFR should include a discussion of environmental and other sustainability risks, where those risks could affect the entity's achievement of its performance or outcomes. Equally, ASIC (2013) provides several properties of CRD quality, namely complementary, consistent with the information in the financial report, balanced and unambiguous. In addition, OFR should present information in a clear, concise and effective manner. The ASIC (2013) attribute (balanced) for CRD quality is similar to the SEC and Finnish risk disclosure guidelines.

2.2.5 King's Committee

In South Africa, CRD is mandatory. The first attempt to provide a guideline on risk reporting was in 1994 with the King I report. The King I report primarily focused on financial and non-financial aspects such as environment, health, safety and affirmative action (Ntim et al.,

2013). However, the King I report suffered from several weaknesses such as failure to provide clear and sound risk reporting practices. This led to the revision of the King I report to the King II report in 2002, coupled with the need for more integrated models, to provide emphasis on robust risk management and reporting practices (King Committee, 2002). The King II report focussed on three main areas, namely risk definition, risk identification, risk classification and risk governance. The King II report defined risk as an "uncertain event that might influence the achievement of organisations' goals in the future" (King Committee, 2002). In the same spirit, the King II report categorised risks into financial and non-financial (operational and strategic risks).

In addition, the King II report was revised into the King III in 2009 to improve the quality of the company's risk management and practice (Ntim et al., 2013). According to the King III report, the company should provide any unexpected or unusual risks and the related material losses incurred for the period under review, risks that may threaten the company's long-term sustainability, and the board's views on the effectiveness of the company's risk-management process. Furthermore, the King III report was revised to the King IV report in 2016 to improve the quality of the company's risk management practice and support enhanced decision-making (King Committee, 2016). According to the King IV report, listed firms are mandated to provide relevant, timely, accurate and complete CRD information (King Committee, 2016). The King IV attributes for quality are similar to GAS-5 (relevant) and SEC (complete).

2.2.6 International Accounting Standard Board

The IASB introduced several accounting standards to provide mandatory disclosures on financial instruments risks, namely IAS 30 (1990), IAS 32(1996), IFRS 7 (2006) and recently the IFRS 9 (2018). IAS 30 focused on disclosures in the financial statements of financial institutions while IAS 32 focused on disclosure and presentation. Both IAS 30 and IAS 32 did not encompass all the types of risks (interest rate risk and credit risks) (Ibrahim et al., 2019). IFRS 7 replaced disclosure requirements contained in IAS 30 and IAS 32 and focused on financial and non-financial firms (Ibrahim et al., 2019). The IFRS 7 categorises risks into qualitative and quantitative terms. Qualitative disclosures require a narrative explanation of market, credit and liquidity risks and strategies used to manage them. For quantitative disclosures, the entity should provide quantitative data on risk exposure at the reporting date, based on information provided internally to the management. The IFRS 9 on recognition and

measurement of financial instruments became effective on 1st January 2018. IFRS 9 supersedes the previous versions. The IFRS disclosures on risk are anchored on the IASB (2010) qualitative characteristics of accounting information (fundamental qualities and enhancing qualities), which include relevance, faithful representation, comparability, verifiability, understandability and timeliness. The IASB qualitative properties are similar to GAS-5 (relevant and reliable), the SEC (free form bias) and the King IV report (relevant, timely, accurate and complete).

2.2.7 Global Sustainability Standards Board

The Global Sustainability Standards Board (GSSB) developed GRI standards for reporting sustainability risks in the annual report. GRI (2006) provides two sections on risks and opportunities in the annual report. Section one focuses on the organization's consequences on stakeholders, including rights as defined by national laws and pertinent international standards (GRI, 2006). Section two focuses on how sustainability trends, risks, and opportunities may affect the organization's long-term prospects and performance (GRI, 2006). According to GRI (2006), the sections should include a description of the organization's top sustainability-related risks and opportunities, as well as a ranking of the importance of each of these topics in terms of their bearing on long-term organizational strategy, competitive position, qualitative and quantitative financial value drivers. The GRI (2006) principles that define report contents include stakeholder inclusiveness, sustainability context, materiality, and completeness, while the principles that define report quality include accuracy, balance, clarity, comparability, reliability, and timeliness. The GRI characteristics that define report quality resemble SEC, GAS 5, ASIC, King IV report, and IASB standards.

2.2.8 International Integrated Reporting Council

The International Integrated Reporting Council developed a reporting framework for presenting non-financial information in the integrated reports (IIRC, 2013). According to IIRC (2013), the integrated report should identify specific risks that affect the organisation’s ability to create value over the short, medium and long term, and how the organisation deals with them. Likewise, the integrated report should identify the risks and opportunities that are specific to the organisation. The specific source of risks and opportunities can be either internal or external or a mix of the two. IIRC (2013) provides guiding principles that underpin the preparation and presentation of integrated reports; these include the content and how the information is presented, i.e. strategic focus and future orientation, connectivity of

information, stakeholders' relationships, materiality, conciseness, reliability and completeness, consistency and comparability. IIRC (2013) argues that the principles are applied individually and collectively when preparing and presenting the integrated report. The IIRC key principles of non-financial information resemble SEC, IASB, and GRI.

2.2.9 Financial Reporting Council

More recently, the Financial Reporting Council (FRC) developed a risk disclosure framework under the Strategic Report and Director's Report. FRC (2018) replaced the Accounting Standards Board (ASB) in 2012. FRC (2018) takes into account the European Union Directive (2014/95/EU) on Non-Financial Reporting (NFR). FRC (2018) describes principal risks, uncertainties facing the entity and explanations of how the risks are managed. According to FRC (2018), risk disclosures include the matters that directors regularly monitor and discuss because of their likelihood, the magnitude of their potential effect on the entity or a combination of the two (FRC, 2018). The complete spectrum of business risks, both financial and non-financial, should be taken into account by managers. Regardless of how they are categorized or whether they arise from organizational behaviour, operations, strategic decisions, or external events over which the board may have limited or no direct control, principal risks should be reported and described. FRC (2018) provides a set of attributes regarded as best practices when presenting CRD. According to FRC (2018), CRD should be fair, balanced and understandable; concise; forward-looking; entity-specific and link-related information with different parts of the annual report. The FRC qualitative characteristics resemble earlier risk disclosure frameworks.

2.3 Summary of review of CRD guidelines

The review of guidelines and reforms as summarised in Appendix III revealed that first, there is no globally accepted guideline on risk disclosure. The existing guidelines vary in nature, from voluntary to mandatory with potential overlaps that hinder accurate interpretation. Future research could explore the possibility of harmonising CRD guidelines akin to financial reporting. Second, the guidelines have not provided a universal definition of the quality of CRD. Though the guidelines mention the phrase "quality of CRD", there have been no attempts to define it. They have taken the quality of CRD to be risk information that meets a set of attributes that are not consistent within and across the guidelines. Third, the guidelines have been evolving as a result of considering other better ways of risk reporting; this implies that the quality of CRD is an evolving concept. If regulators and standard setters are serious

about responding to the call for high-quality CRD, such attempts should start by defining the concept before setting any CRD standard. Besides, for CRD practice to serve the intended purpose, it should be clear, precise and agreed upon. According to Ibrahim and Hussainey (2019), failing to define the term risk leaves the reader confused.

2.4 Meaning and measurement of quality of CRD among researchers

Central to the question of meaning and measurement of high-quality CRD is the approach used by researchers to measure quality. Following Wangombe (2013), an electronic search was carried out on journal databases to identify how the word “quality” and the term “corporate risk disclosure” have been used among scholars. The appropriate journals were established and a word search was carried out (Elshandidy et al., 2018). The journals were defined according to the UK’s Association of Business Schools (ABS) journal ranking quality guide (i.e., those termed 1*, 2*, 3* and 4* journals) (Elshandidy et al., 2018; Mbithi et al., 2022b). Even though some scholars have questioned the validity of the journal rankings quality guides due to the challenges of establishing objective assessment (Bonner et al., 2006), for this study, it was assumed that journal ranking quality guides could be used as the first step to identify the usage of a given term (Wangombe, 2013).

The search was carried out with the help of keywords to identify how the word "quality" and the term "corporate risk disclosure" have been used among scholars (Wangombe, 2013). To enrich the search, the terms "corporate risk disclosure" and "corporate risk reporting" have been used interchangeably. Nevertheless, disclosure and reporting are not synonymous (Veltri, 2020). Besides, studies that have used the terms "corporate risk disclosure" and "corporate risk reporting" without paying attention to quality were eliminated. Since risk disclosure is a multidisciplinary concept (Folami & Jacobs, 2016), it can be published in other journals other than accounting journals. Therefore, a similar word search was carried out in Google Scholar and Scirus search engines. The main journal databases were Emerald, Elsevier, Macmillan, Wiley Online Library, Inderscience, Routledge and Springer (Mbithi et al., 2022b). Both accounting and non-accounting journals produced 51 articles, as presented in Table 2.1. The identified journal articles were reviewed to understand the usage and measurement of CRD quality.

Table 2.1: The journals dealing with Quality of CRD published between 1990 and 2019

Accounting Journals	**Articles**
International Journal of Accounting	3
Accounting and Finance	1
Accounting and Business Research	3
Advances in Accounting	1
International Journal of Disclosure and Governance	2
Journal of Accounting in Emerging Economies	1
Journal of Applied Accounting Research	3
Journal of International Accounting Research	1
Managerial Auditing Journal	9
Review of Accounting Studies	3
Spanish Accounting Review	1
British Accounting review	2
Journal of Accounting Literature	1
Accounting Forum	1
Journal of International Accounting, Auditing, and Taxation	1
International Journal of Accounting, Auditing and Performance Evaluation	1
Non-Accounting Journals	
European Business Review	1
International Review of Financial Analysis	3
Journal of Banking Regulation	1
Journal of Financial Management, Markets, and Institutions	1
Journal of Governance and Regulation	1
Public Money and Management	1
The Quarterly Review of Economics and Finance	1
Journal of International Financial Markets, Institutions, and Money	1
Journal of Multinational Financial Management	1
Journal of Banking and Finance	1
Financial analyst Journal	1
The Journal of Operational Risk	1
World Review of Entrepreneurship Management and Sustainable Development	1
SSR Electronic Journal	1
International Review of Economics and Finance	1
Total	**51**

2.4.1 Meaning of quality of CRD among researchers

The findings indicate that there is no universally accepted concept of risk among the researchers; researchers use different concepts of risk and related terms, namely risk-related narratives (Beretta & Bozzolan, 2004; Allini et al., 2016), risk management disclosures (Buckby et al., 2015), risk disclosure (Saggar & Singh, 2017), and voluntary/mandatory risk-related disclosures including narratives, tables and graphs (Ntim et al., 2013; Elamer et al., 2019a). Elshandidy et al. (2018) also caution that the use of different concepts of risk among researchers contributes to lack of clarity in the CRD definition.

The study calls for researchers to be consistent in the use of the term risk for the concept to be uniformly understood. Similarly, the majority of researchers do not define the term risk and they assume that the reader is aware of what they mean, but failure to define brings confusion among readers (Ibrahim & Hussainey, 2019). Equally, those who define risk have not provided a universally accepted definition. Furthermore, researchers who have attempted to define the term do so from two main perspectives, namely one-side definition and two-side definition. One side definition is regarded as the pre-modern view of risk. This definition recognises risk as a negative outcome. Similarly, Horcher (2005) defines risk as the possibility of loss or uncertainty with negative consequences. In the same circuit, Ibrahim and Hussainey (2019) propose the adoption of the pre-modern view in the definition of risks.

The two-side definition is regarded as the modern view of risk. This perspective recognises risk as a future event that has both positive and negative outcomes (Linsey & Shrives 2006). This perspective demonstrates that risk can have both gains and losses or upside and downside on business. The downside risks present the possibility of losses while upside risks present the possibility of gains. Linsey and Shrives (2006) classify risks into five categories, namely financial, operational, empowerment, technology, and strategic. Several studies have adopted this broader definition of risk (Mokhtar & Mellet, 2013; Ntim et al., 2013; Al-shammari, 2014; Elamer et al., 2019a). Consistent with these studies, the present study adopted the two-side definition of risk. This is because it is considered comprehensive enough to capture the multi-dimensional nature of risk. Likewise, it is consistent with the comprehensive framework proposed in the literature (Chapter four). Nevertheless, whether the pre-modern view or the modern view, the two perspectives should be seen as complementary rather than competing when conceptualising the quality of CRD (Ibrahim & Hussainey, 2019).

The divergent views on risk confirm that CRD is a complex and multifaceted concept in nature (Elshandidy et al., 2018). Thus, for the concept to be understood, researchers are encouraged to provide a clear and precise definition of CRD (Ibrahim & Hussainey, 2019). A proper justification should be provided why a particular perspective is preferred over the other. It is worth noting that each CRD perspective determines what constitutes its quality and measurement. This implies that the quality of CRD based on the pre-modern view is different from the quality of CRD based on the modern view. Consequently, the measure of such quality might be different even though there could be some similarities (Mbithi et al., 2022b). More importantly, despite the attempts by researchers to define the quality of CRD, they have assumed that quality is a continuum that varies between zero and perfect in their definition. The study fills this gap in the literature when it examines the quality of CRD among listed non-financial firms in Kenya.

2.4.2 Measurement of quality of CRD among researchers

This section presents methods and techniques widely used in the literature to study the quality of CRD and the implications of choosing one approach over the other.

2.4.2.1 Risk disclosure methods

This analysis aims to identify the methods commonly used to measure the quality of CRD. The findings indicate that there are two disclosure methods widely used to measure the quality of CRD: disclosure index and counting narratives. The disclosure index is the method frequently used to measure the quality and the extent of CRD practice (Barakat & Hussainey, 2013; Beretta & Bozzolan, 2004; Bufarwa et al., 2020; Mokhtar & Mellett, 2013; Ntim et al., 2013). The disclosure index may either be unweighted or weighted. The unweighted index treats all the disclosure items as equal, irrespective of the amount of space or importance devoted to the item while the weighted index uses different weights for various disclosure items (Abed et al., 2016).

Constructing an index involves three main steps. The first is preparing a checklist of predetermined items; researchers rely on existing guidelines, standards and literature to develop the checklist. This implies the approach is only appropriate for areas where the researcher not only knows what might be found but can also describe it using a series of unambiguous, mutually exclusive and exhaustive descriptors (Abed et al., 2016). Secondly, researchers examine whether the predetermined item is disclosed or not in the annual report following a particular coding scheme. Thirdly, researchers sum the scores given to each firm

observation and then divide by the maximum score to determine the level of CRD. Notwithstanding the effectiveness of the method, in measuring the quality of CRD, it has several weaknesses (Abed et al., 2016; Marston & Shrives, 1991). For instance, it has been criticised for being labour-intensive, expensive and subjective when dealing with large samples (Marston & Shrives, 1991). To minimise subjectivity, researchers advocate for, first, reliability and validity tests (Bufarwa et al., 2020; Elamer et al., 2019a), secondly, the use of computerised content analysis (Elshandidy & Neri, 2015), and thirdly, use of an alternative measure of the quality of CRD to test for the robustness (Elamer et al., 2019a).

The next common method to measure the quality of CRD is counting narratives (Ibrahim & Hussainey, 2019). This method involves counting risk-related sentences (Beretta & Bozzolan, 2004; Linsley & Shrives, 2006), words (Abraham & Cox, 2007; Miihkinen, 2012), texts (Ntim et al., 2013; Elshandidy et al., 2021), and then transforming the number into natural logarithms. Unlike the disclosure index, this approach takes care of the space devoted to the particular disclosure. The counting of narratives can be done manually or it may be automated. However, whether the content analysis is manual or automated, the debate has been on the choice of measurement unit such as the use of words, sentences, paragraphs or pages (Abed et al., 2016; Joseph & Taplin, 2011).

The use of words as a measurement unit has been criticised because the meaning relies on a word's syntactical role within a sentence, and words do not convey any meaning otherwise (Linsley & Shrives, 2006). Unerman (2000) argues that using sentences ignores the possibility that differences in sentence length may lead to different scores for companies disclosing the same amount of information. According to Adler and Milne (1999), sentences provide complete, reliable and meaningful data for analysis as opposed to coding using a single word or phrase. The present study used sentences to measure the quality of CRD (Elamer et al., 2019a; Elamer et al., 2019b).

2.4.2.2 Risk disclosure techniques

This analysis aims to identify the techniques commonly used to measure the quality of CRD. The findings indicate that there are two main techniques, namely content analysis and computational linguistics. Content analysis is the method frequently used to measure quality. The content analysis relies on predefined words or sentences, or both that reflect risk in the annual reports to measure CRD quality (Elamer et al., 2019a). Content analysis studies fall under two principal methods, namely manual and automated content analysis.

Manual content analysis involves the researcher first developing a checklist of disclosure items, reading the entire narrative and recording the incidence of the relevant disclosures. It permits the use of quantitative and qualitative analysis, which allows the researcher to interpret better the meaning of specific words and phrases (Deumes, 2008; Abed et al., 2016). However, it is time-consuming and expensive if large amounts of data are involved (Deumes, 2008; Abed et al., 2016). In addition, Krippendorff (2004) argues that it might be challenging to design a reliable coding technique under manual content analysis. Because of this, researchers have resorted to automated content analysis.

Computational linguistics involves the use of natural language processing techniques from linguistics and artificial intelligence to measure the quality of CRD (Ibrahim & Hussainey, 2019). This approach captures broad aspects of the disclosure that cannot be measured by other means when dealing with large samples (Beyer et al., 2010). Despite the superiority of the technique, accounting researchers still rely on content analysis because of lack of experience in natural language processing techniques (Ibrahim & Hussainey, 2019). The present study used manual content analysis to study the quality of CRD in Kenya (Elamer et al.,2019a; Elamer et al., 2019b).

2.5 Summary of meaning and measurement of quality of CRD

The review of past studies revealed that, first, there is no universally accepted definition of risk and risk-related information among researchers. Secondly, two perspectives have been commonly used to define the quality of CRD, namely the pre-modern perspective and the modern perspective. Thirdly, two methods have been commonly used to measure the quality of CRD, namely disclosure index and counting narratives. Fourth, two techniques have been commonly used to measure the quality of CRD, namely content analysis and computational linguistics. The present study used a disclosure index and manual content analysis to study

the quality of CRD so as minimise diversity in definition and measurement. Besides, the weaknesses associated with each approach were managed.

2.6 Chapter summary and the proposed definition of "High-quality CRD"

The chapter presented areas of convergence and divergence on the meaning of the term high-quality CRD among stakeholders. The chapter started with a review of CRD guidelines from different institutional settings. The analysis indicates that there is no attempt made to define high-quality CRD, especially how the higher end of the spectrum would be. Similarly, the chapter reviewed past studies to understand how researchers have applied different frameworks to measure CRD quality. It was observed that researchers have approached the subject of quality from different perspectives. Notwithstanding the elaborate literature on CRD, studies have failed to provide the meaning of high-quality CRD, leading to the differences in how CRD is conceptualised and measured. This is accentuated by the fact that disclosure is theoretical, difficult to measure directly, and that attempts are still ongoing using a variety of potential proxies to measure CRD.

Merging the views of academicians and those of regulators, the chapter adopted a two-side definition of risk (modern view) in line with the recent framework and CRD literature. Moreover, a stakeholder perspective was involved to establish a common understanding of high-quality CRD. This helps to minimise diversity in the definition and to reconcile findings of prior studies. Thus, to operationalise the quality of CRD, the tentative definition is taken to be: *disclosure of risk and risk-related information in line with recent guidelines and rated using an index that captures current literature*. The definition is adapted from Elamer et al. (2019a), Ntim et al. (2013) and FRC (2018).

CHAPTER THREE
CRD ENVIRONMENT IN KENYA

3.1 Introduction

The chapter provides a context in which research findings will be interpreted. Mbithi et al. (2022a) advocate for studies in developing countries to establish the existing quality of CRD. According to the global competitiveness report for 2018, Kenya is considered a developing country (World Economic Forum, 2018), and developing economies tend to have weak institutions, resulting in an incapacity that disables the system necessary to permit the economy to function. Based on this, is there a possibility of high-quality CRD in Kenya? The results from the study will provide a reference point to be replicated by other developing countries to improve CRD practice. The chapter presents the cases for and against Kenya. It is organised as follows: Section 3.1 is the introduction; Section 3.2 is overview of the Kenyan economy, split into location, background, population, economy and the companies listed in Kenya; Section 3.3 presents CRD practice in Kenya, and Section 3.4 is the chapter summary.

3.2 Overview of Kenya's economy

The Republic of Kenya sits on the equator, with a total land area of 571,466 km^2 and is bordered by the Indian Ocean, Uganda, Tanzania, Ethiopia, South Sudan and Somalia (NCPD, 2013; AfDB, 2019). Kenya ranks 29th in the World and 7th in Africa, with an estimated population of 47.564 million (KNBS, 2019; KNBS, 2020). Kenya is a member of the United Nations, World Bank, International Monetary Fund, COMESA, and other international organisations (NCPD, 2013). It is one of the fastest-growing economies in the Sub-Saharan Africa region (KNBS, 2018; AfDB, 2019; KNBS, 2019). The country has experienced stable GDP growth averaging 5.6% over the last 5 years (KIPPRA, 2020). Despite the positive progress, the economy was adversely affected by slowed global economy owing to the COVID-19 pandemic in 2020 (CMA, 2021). In 2022, the economy is expected to recover and grow by 5.9% (CMA, 2021; AfDB, 2021). The projected economic growth is pegged on agricultural output, eased political uncertainties resulting from the handshake, improved business confidence, implementation of economic recovery strategies, strong private consumption and successful vaccine roll-out (CMA, 2021).

In the East Africa region, Kenya is a dominant economy, contributing to more than 40% of the region's GDP (KNBS, 2018). The country enjoys several advantages such as a reasonably well-educated labour force, a vital port that serves as an entry point for goods destined for

countries in East and Central Africa, abundant wildlife and kilometres of attractive coastline and a government that is committed to implementing business reforms (AfDB, 2019). Kenya's position as the economic, commercial and logistical hub in Eastern and Central Africa, renders the country one of the best investment destinations globally (AfDB, 2019). Though the country has made significant political and economic reforms over the last decade, its key development challenges include inadequate infrastructure, income inequality, poverty and poor governance. In addition, the country is exposed to internal and external shocks, uncertain weather, desert locust and COVID-19 challenges (KNBS, 2018; AfDB, 2019; AfDB, 2021). Furthermore, the country is at high risk of debt distress, and addressing debt management risks calls for growth-friendly reforms (AfDB, 2021).

3.2.1 Agriculture, Forestry, Fishing

The agricultural sector is the second largest contributor to GDP in Kenya after the service sector (KNBS, 2019). The sector contributed 30.2% (2015), 31.1% (2016), 34.8% (2017), 34.1% (2018) and 34.15% (2019) to the GDP. The principal cash crops in Kenya include tea, horticultural produce and coffee. Horticultural produce and tea are the most valuable of all of Kenya's exports (KNBS, 2018; KNBS, 2019). The growth of the sector is largely driven by the following agricultural activities: growing crops, animal production, support activities for agriculture, forestry and logging, fishing and aquaculture. For instance, growing crops accounted for an average of 26.24%, animal production for an average of 4.32%, support activities for agriculture for an average of 0.5%, forestry and logging for an average of 1.3% and fishing and aquaculture accounted for an average of 0.5% from 2015 to 2019 (KNBS, 2020). Resource degradation reduced forestry output while the decline in fishing has been attributed to ecological disruption, pollution, overfishing and the use of unauthorised fishing equipment (KNBS, 2018). The downside risks to the sector emanate from unpredictable weather patterns, locust invasion, and the COVID-19 pandemic that led to high operational challenges (KNBS, 2020).

3.2.2 Industry and manufacturing

Though Kenya is the most industrially developed country in East Africa, the country's industrial growth has stagnated, with a GDP contribution of 8.42 % between 2015 and 2019 (KNBS, 2020). The main activities under the sector include the manufacture of food, beverages and tobacco, other manufacturing sectors, and repair and installation (KNBS, 2020). Food, beverages and tobacco accounted for an average of 3.38% while repair and installation accounted for 5.05% of GDP in the five years of interest (2015/2019). Industrial activity is concentrated around the three largest urban centres, namely Nairobi, Mombasa and Kisumu. The sector expanded after independence but stagnated from 1980 due to high energy costs, poor infrastructure, counterfeits, and dumping of cheap imports among other challenges (KNBS, 2010). However, the sector looks promising since the government declared manufacturing to be a top priority agenda to drive economic growth to 15% by 2025 (KNBS, 2020). In addition, the country is set to benefit from expanding the informal sector that engages in small-scale manufacturing of household goods, motor-vehicle parts, and farm implements (KNBS 2018).

3.2.3 Mining and quarrying

The sector makes a negligible contribution to the Kenyan economy, accounting for less than one per cent of the country's GDP. For instance, the sector accounted for an average of 0.78% from 2015 to 2019 (KNBS, 2020). Though the country has no significant mineral endowment, the main mineral resources include gold, iron ore, soda ash, some rare earth minerals, and gemstones (KNBS, 2020). Gold is mostly restricted to the western part of the country, while areas around Mombasa host limestone, niobium, iron ore, gemstones, crude oil and salt (KNBS, 2018). Recently, some deposits of titanium were discovered in the coastal region and exploration is ongoing. However, the quantity of mineral production in Kenya was reduced between 2015 and 2019 (KNBS, 2020). For instance, Titanium recorded a combined decline of 18.3% on average. Equally, Soda ash declined by 32% tonnes from 2018 to 2019. Furthermore, gemstones decreased by 20.7% from 2018 to 2019 (KNBS, 2020).

3.2.4 Energy Kenya

The sector contributed about 1.7% to the Kenyan GDP from 2015 to 2019 (KNBS, 2020). Among other purposes, the energy generation operations pertain to the supply of electric power, natural gas, steam, and hot water (KNBS, 2020). The Turkwel Gorge Dam in the west and hydroelectric plants at dams along the upper Tana river generate the majority of Kenya's electricity. The remaining energy is provided by the petroleum-fired plant on the coast, geothermal resources in Olkaria, and electricity imported from Uganda. The electricity is produced by the Kenya Electricity Generating Company (KenGen), while transmission and distribution are handled by Kenya Power (KPLC). Periodically, electrical shortages happen when droughts limit water flow. Additionally, there are still significant barriers to commercial activity, such as frequent outages and high expenses. To stimulate investment in hydroelectricity and geothermal energy, in which Kenya is a pioneer, taxes and other incentives are proposed. In Turkana, the nation recently discovered some hydrocarbon deposits following several decades of sporadic exploration. Kenya imports all of its crude petroleum needs in the meantime. Twenty to twenty-five per cent of the country's import bill is made up of petroleum.

3.2.5 Tourism

The service sector in Kenya is dominated by the tourism sector (KNBS, 2018). Since independence, the tourism industry has grown consistently, and by the late 1980s, it had replaced other sources of foreign exchange as the primary industry in the nation. Due to a decline brought on by terrorism in the late 1990s, tea exports took over this position from tourism. A spectacular comeback in the tourism industry occurred in 2016 as a result of increased security and prosperous conference travel (KNBS, 2018). Similar benefits came to the industry from strong marketing in both home and foreign markets. When compared to KES 157.4 billion in 2018, the receipts flowing to the tourism industry earnings increased to KES 163.6 billion in 2019, representing a gain of 6.4 per cent (KNBS, 2020). The arrivals of visitors from outside the country increased by 0.4% in 2019. In the same time frame, the number of international conferences increased by 6.9% (KNBS, 2019). The number of visitors to museums, snake parks, and historical places decreased by 1.6 per cent in 2019. But in 2019, the number of people visiting national parks and game reserves increased by 3.7%. (KNBS, 2020). The downside risks to the tourism sector emanate from the COVID-19 pandemic; restrictions resulting from the cessation of movement, nationwide curfew and stoppage of international travel among other challenges (KNBS, 2020). However, the outlook

of the sector is promising following the successful implementation of economic recovery strategies and vaccine rollout.

3.2.6 Financial services

Kenya's financial sector consists of the banking sector, savings and credit co-operatives, insurance industry, pensions industry, capital markets industry and financial markets infrastructure providers (Financial Sector Regulators, 2020). The sector is regulated and supervised by Capital Markets Authority (CMA), Central Bank of Kenya (CBK), Insurance Regulatory Authority (IRA), Retirement Benefits Authority (RBA), Sacco Societies Regulatory Authority (SASRA), and government Ministries. The banking sector accounts for more than 60 per cent of total assets in the sector as of December 2017 (Financial Sector Regulators, 2018). The financial services industry is impacted by the ever-changing consumer needs, innovative financial products, technological advancements and shocks from the global economy (Financial Sector Regulators, 2020).

The banking sector remained resilient in 2019/2020, as reflected by enhanced liquidity and capital buffers of 53.1% and 18.5% against the benchmark of 20% and 14.5%, respectively (Financial Sector Regulators, 2020). However, banking sector profits reduced by 30% between 2019 and June 2020 owing to shocks from the COVID-19 pandemic (Financial Sector Regulators, 2020). Similarly, the non-performing loans worsened from 12% in 2019 to 13.1% in 2020 (Financial Sector Regulators, 2020). SACCOs remained stable in 2019, with high liquidity and capital buffers compared to the benchmark. However, the high-interest expenses ratio and disruption in members' livelihood increased credit and funding risks (Financial Sector Regulators, 2020).

The performance of the insurance sector was negatively impacted by the COVID-19 pandemic owing to reduced premiums linked to loss of livelihood and travel restrictions. Similarly, the pension industry profits and asset base declined because of reduced contributions linked to the loss of jobs. Equally, Kenya's equity market was less vibrant on account of economic moderation in the face of the COVID-19 pandemic (Financial Sector Regulators, 2020). The equity market capitalisation declined by 17.2% in June 2020 from 20.8% in 2019 (Financial Sector Regulators, 2020). The bond market was also inactive, with no new issues during the same period. Despite the shocks of COVID-19, the outlook of the

financial system is stable, owing to robust regulatory oversight, and efficient financial market infrastructure (Financial Sector Regulators, 2020).

3.2.7 Kenyan exports

The value of exports declined by 2.9% between 2018 and 2019. Agricultural products are central to Kenya's export industry with horticulture and tea being the most important drivers. Other export items include textiles, coffee, tobacco, iron and steel products, petroleum products and cement (KNBS, 2018). The leading export earners in 2019 included tea, clothing accessories, coffee, iron and steel (KNBS, 2020), which contributed 59% to the total value of exports from Kenya (KNBS, 2020). Africa is the leading destination of Kenya's exports, accounting for 37.6% of the value of exports. East Africa Community partners accounted for 62.6% of exports to Africa (KNBS, 2020). Europe is the second destination for Kenyan exports, accounting for 25.4 due to agricultural products. Kenya's main export partners in Europe include the United Kingdom, Netherlands and Germany (KNBS, 2020). Despite the good progress, the growth of the sector was negatively affected by the COVID-19 pandemic. The slowed global economy is expected to continue impacting the Kenyan export industry, especially horticultural products (KNBS, 2020).

3.2.8 NSE listed companies in Kenya

The Nairobi Securities Exchange (NSE) is the largest capital market in East Africa and the leading one in Sub-Saharan Africa in terms of returns (Onyuma, 2020). In 2019, the NSE All-share index outperformed its peers in Africa, namely the Johannesburg Stock Exchange, Morocco Casablanca Stock Exchange, Nigeria Stock Exchange and Egyptian Exchange (Onyuma, 2020). The exchange was founded in 1954 under the jurisdiction of the Capital Markets Authority of Kenya (CMA) as a voluntary association of stockbrokers registered under the Societies Act (Nyasha & Odhiambo, 2014). Currently, the market has 65 companies listed across 12 sectors, namely Agriculture, Automobiles & Accessories, Banking, Commercial and Services, Construction & Allied, Energy & Petroleum, Insurance, Investment, Investment Services, Manufacturing & Allied, Telecommunication & Technology, and Real Estate Investment Trust (CMA, 2020). Besides the shares, derivatives and bonds, the NSE offers a platform for the issuance of other securities.

NSE is a full member of the World Federation of Exchange (WFE), a founder member of the African Securities Exchanges Association (ASEA) and the East African Securities Exchanges

Association (EASEA). Similarly, it is a member of the Futures Market and a member of the Financial Information Service Division (Onyuma, 2020). NSE offers a trading facility and plays a vital role in the growth of Kenya's economy by encouraging savings and investment, as well as helping companies access capital (Nyasha & Odhiambo, 2014). In the past decade, the exchange has undergone significant changes such as moving from manual trading to automated trading (CMA, 2021). The upgrade allows linkage between back-office operations of stockbrokers and the online system run by CDSC and NSE. This helps to minimise brokers' malpractices. Likewise, the online system has enhanced regulation through better quality data and improved analysis (CMA, 2021).

CRD is vital for the efficient allocation of risk capital and functioning of capital markets; it provides a wider audience beyond investors, such as governments, employees and other stakeholders, with information that is useful for assessing company stewardship and risk profile (UNCTAD, 2017). Well-functioning capital markets and the efficient allocation of risk capital are vital for long-term economic growth and achieving SDGs (UNCTAD, 2017). To enhance disclosure compliance, the quoted firms are required by Securities, Public Offers, Listing and Disclosures Regulations to prepare the annual report. Equally, quoted firms are expected to comply with the requirements of the Kenya Companies Act and CMA listing regulations. In addition, CMA reviews the reporting of quoted firms to enhance compliance. As far as risk disclosure is concerned, listed firms are required by the Kenya Companies Act and CMA to disclose principal risks and uncertainties arising from their business model and mitigation strategies put in place (CMA, 2015; GOK, 2015b). Despite the efforts by NSE and CMA to encourage listed firms to provide useful disclosures, the current framework is not sufficient enough to guide CRD among listed non-financial firms in Kenya.

3.3 CRD practice in Kenya

The accounting profession in Kenya is governed by the Accountants Act 1978 and the Companies Act 1962 (McFie, 2006). The Accountants Act was enacted on the 1st of July 1977 and replaced in 2008 under CAP 531 laws of Kenya. Similarly, the Accountants Act of 2008 was revised in 2020. The Accountants Act established ICPAK to regulate the accounting profession in Kenya. In 1998, the institute adopted the International Financial Reporting Standards (IFRS), then referred to as International Accounting Standards (IAS) (World Bank, 2010). In 1999, both listed and non-listed companies were supposed to start preparing financial statements following IAS. The institute works with various supervisory

bodies to ensure compliance with IAS, namely Capital Market Authority (CMA), Central Bank of Kenya (CBK) and Insurance Regulatory Authority (IRA) and Sacco Societies Regulatory Authority (SASRA) (Sacco's) and (Retirement Benefits Authority (RBA). ICPAK continues to promote high-quality reporting through enhancing sound governance practices under the FiRe award (McFie, 2006). To encourage compliance among companies, ICPAK initiated a high-quality reporting competition in 1986, and the first time the award was conducted, only 30 companies quoted on the Nairobi Securities Exchange participated (McFie, 2006). The companies were scored based on the following criteria; Kenya Companies Act compliance, clarity in the presentation of the information contained in the accounts, and quality of format used (McFie, 2006).

In 1988, the non-quoted companies and parastatals participated in the award, and in 2002, the institute corroborated with CMA and NSE and named the competition the Financial Reporting Excellence award. The institute keeps on modifying the scoring system to capture the emerging issues and elements that enhance the level and high-quality reporting (McFie, 2006). It is worth noting that the institute recognises risk reporting in the annual report as one of the elements for their annual Financial Reporting (FiRe) award (ICPAK, 2013). In addition to the Accountants Act, The Kenya Companies Act sets out the general framework for accounting and reporting by all listed firms and stipulates the minimum requirements concerning financial reporting (Government of Kenya, 2015b). The Companies Act requires all incorporated companies to prepare proper books of account that give a true and fair view of the state of affairs and transactions.

The Act requires the annual financial statement to contain a profit and loss account, balance sheet, statement of cash flow, statement of changes in equity, director's report, and auditor's report. The statement of profit and loss account and the balance should comply with the prescribed accounting standard relating to the form and content (Government of Kenya, 2015b). Moreover, the director's report should include the names of persons who were directors at any time during the financial year and the principal activities of the company during the year (Government of Kenya, 2015b). Furthermore, the director's report should contain the Business Review section; this section helps to inform stakeholders about company performance from the eyes of the management (Government of Kenya, 2015b). Besides, the Business Review section should encompass a fair review of the company's business, principal risks and uncertainties facing the company, a balanced and comprehensive

analysis of the development and performance of the company during the financial year and position of the company at the end of the year, consistent with the size and complexity of the business (Government of Kenya, 2015b). Similarly, the analysis, development and performance of the company should include main trends and factors likely to affect the future development, performance and position of the business, information about the environmental matters, employees of the company, social and community issues (Government of Kenya, 2015b). Lastly, the auditor's report should state whether the annual financial statements give a true and fair view of the company at the end of the year (Government of Kenya, 2015b). Since the Act is not detailed, it is not clear whether CRD improved after the enactment of the Kenya Companies Act.

3.3.1 Capital Market Authority Code of Governance

Corporate governance reforms in Kenya are being driven by the Commonwealth Association for Corporate Governance (CACG), United Kingdom, South Africa, OECD, and the Centre for Corporate Governance (CCG), among others (Barako, 2007; Okiro, 2014). In 2002, the Kenya Capital Markets Authority (CMA) issued a mandatory Corporate Governance Code for listed companies (Barako, 2007). The CMA Corporate Governance Code mirrored the 1999 CCG guidelines. Then, in 2005, CCG issued reporting guidelines that underscored the importance of non-financial disclosures such as corporate governance disclosures (e.g. board composition and ownership structure) and corporate social responsibility disclosures (Barako, 2007). In 2015, CMA Corporate Governance Code was amended to reflect the change in the Kenya Companies Act 2015 (CMA, 2015). The Corporate Governance Code mandates public listed firms to define the mission, strategy and risk policy, and to identify principal risks affecting their operations as well as appropriate measures to manage such risks (CMA, 2015). The board should ensure that accounts are presented in line with International Accounting Standards. In addition, the Code requires that within ninety days, at the end of every financial year, listed firms should submit their financial statement, which includes corporate governance of self-regulatory organisations, financial statements prepared and audited following the accounts and audit requirements for regulated persons (CMA, 2015).

3.3.2 Governance for State-Owned Corporations

The Mwongozo Code of Governance was enacted in 2014 to address matters of the effectiveness of boards, transparency and disclosure, accountability, risk management, internal controls, ethical leadership and good corporate citizenship in SOEs (Government of Kenya, 2015a). These practices are at the core of the values and principles of Public Service as enshrined under Article 232 of the Constitution of Kenya, 2010, and best global practices, such as OECD. To ensure that the Mwongozo provisions comply with IAS, the State Corporations Advisory Committee (SCAC) engaged the Institute of Certified Public Secretaries of Kenya (ICPSK) to assist in the development and validation (Government of Kenya, 2015a). The Mwongozo Code mandates SOEs to disclose, in their annual report, the Management Discussion and Analysis (MD&A) (Government of Kenya, 2015a). The MD&A section set out an assessment of the management of the factors that affected the organisation's financial condition and results of operation over the period under review; and known trends which are reasonably likely to have material effect on the financial condition and results of operations (Government of Kenya, 2015a). The Code also requires SOEs to comply with the applicable financial reporting standards in preparing financial statements (Government of Kenya, 2015a). As far as risk reporting is concerned, the Code mandates SOEs to disclose in the annual report, the policy of the organisation on risk management, the key risks to which the organisation is exposed and complete, timely, relevant, accurate and accessible CRD to stakeholders (Government of Kenya, 2015a).

3.3.3 Rationale for selecting Kenya

Kenya is a dominant economy in the East Africa region, contributing more than 40% to the region's Gross Domestic Product (KNBS, 2018). The country serves as an entry point for goods destined for countries in the East and Central Africa interior; it has abundant wildlife and kilometres of attractive coastline (KNBS, 2018). Kenya's position as the economic, commercial and logistical hub in Eastern Central Africa places the country as one of the best investment destinations globally (World Economic Forum, 2018). Though the country has made significant political, social and economic reforms over the past decade, its key development challenges include high-income inequality, poverty and governance among others (KNBS, 2018; AfDB, 2019; AfDB, 2021). Moreover, the country is exposed to a high risk of debt distress, internal and external shocks, uncertain weather, desert locust and COVID-19 challenges (AfDB, 2019; AfDB, 2021). For the country to deal with the above challenges and remain the economic, commercial and logistical hub in East-central Africa,

high-quality disclosure is critical to facilitate the measurement and management of indicators important for achieving the Sustainable Development Goals (UNCTAD, 2017). Furthermore, Kenya could be considered an example of a developing country. According to the global competitiveness report of 2018, Kenya is a developing country where governance enforcement mechanisms are weak (World Bank, 2010).

Similarly, developing economies tend to have weak institutions, resulting in incapacity, which disables the system necessary to permit the economy to function (McFie, 2006) and achieve high-quality CRD. The Kenyan model could be used by other developing countries as a reference point to improve disclosure. Equally, being a significant emerging capital market in Sub-Saharan Africa, the NSE provides a good starting point to understand the motivation behind quality CRD and the characteristics exhibited by firms that have achieved high-quality CRD. If high-quality CRD can be achieved by NSE quoted firms, other developing markets can emulate good practices. Likewise, for NSE listed firms to respond to the calls for greater transparency and sound risk management, there is need to examine the status of CRD quality and the determinants of such quality.

3.4 Chapter summary

The chapter presented the cases for and against Kenya. It discussed the overview of Kenya, location, background, population and economy; the accounting regulation, the risk reporting initiatives and challenges facing Kenya; the Capital Market Authority, and governance of state-owned enterprises. The chapter discussed the rationale for locating the study in Kenya. Kenya is a developing country and the results from the study will provide a reference point to be replicated by other developing countries. The chapter argues that if high quality can be achieved in Kenya then other developing countries can emulate it. Nkuutu et al. (2020) advocate for CRD studies in developing countries to establish the existing quality of CRD. This chapter is a response to the invitation by Nkuutu et al. (2020), as the quality of CRD in developing countries has not previously been documented.

CHAPTER FOUR

MULTI-THEORETICAL FRAMEWORK FOR CRD

4.1 Introduction

The chapter explores various theoretical frameworks commonly used to study CRD behaviour. The chapter proposes a uniform and comprehensive theoretical framework for studying CRD behaviour among listed firms in Kenya. The literature presents different theoretical perspectives to study CRD. However, the perspectives commonly used to explain and predict CRD behaviour could be classified into two main streams. One stream focuses on the economic perspective, namely agency theory, resource dependence theories and signalling theory while the other focuses on socio-political theories, including stakeholder theory, legitimacy theory, and institutional theory. The chapter presents a review of the theories used to explain CRD behaviour and proposes a multi-theoretical framework that captures different aspects of CRD. The rest of the chapter is organised as follows: Section 4.2 discusses the theoretical lens for CRD; Section 4.3 focuses on multi-theoretical perspective for studying CRD, and Section 4.4 presents the chapter summary.

4.2 Theoretical lens for studying CRD

Disclosure studies worldwide (developed and developing countries) show variance in the extent and nature of risk disclosure across firms within the same industry and country (Elshandidy et al., 2018; Grassa et al., 2020; Khandelwal et al., 2020; Nkuutu et al., 2020). While some firms do not disclose, others voluntarily disclose less while others disclose a large amount of information. To investigate the managerial incentives and disincentives of engaging in CRD, the study explores the different perspectives to suggest a comprehensive or uniform framework that can be used to explain and predict the CRD behaviour of a firm over time. An electronic search from peer-reviewed journal articles ranked as 1*, 2*, 3* and 4* based on ABS similar to the one in Chapter two was carried out (high-quality CRD). The articles from both accounting and non-accounting journals produced 51 articles as shown in Appendix II; one stream focuses on the economic perspective, namely agency theory and resource dependence theories while the other focuses on socio-political theories, including stakeholder theory, legitimacy theory, and institutional theory. The study explores different perspectives and suggests a comprehensive framework that can be used to explain and predict the CRD behaviour of a firm over time.

4.2.1 Agency theory

Agency theory is the most dominant of all disclosure theories and is widely used in CRD studies (Ntim et al., 2013; Tan et al., 2017). The theory argues that a firm is a nexus of contracts between self-seeking agents (managers) and principals (owners) operating inefficient capital markets (Jensen & Meckling, 1976). An agency contract is assumed to exist where one or more persons (owner/principal) engage another person to perform some service (managers/agent) on their behalf (Jensen & Meckling, 1976), i.e., the owners (principal) may delegate some decision making authority to the agents (managers). The theory maintains that because of the separation between ownership and control, managers have access to more information about the firm and may be driven by their self-interests (Jensen & Meckling, 1976).

This may lead to agency problems between owners and managers and consequently, agency costs (monitoring, bonding, and residual loss) (Jensen & Meckling, 1976). To mitigate the agency cost, both agents and principals recognise that it may be beneficial to reduce this information asymmetry by providing more CRD (Jensen & Meckling, 1976; Abraham & Cox, 2007; Mazumder & Hossain, 2018). Theoretically, the theory suggests that a company that wishes to reduce information asymmetry in the capital market will provide more useful risk-related information in their annual reports voluntarily. Therefore, providing CRD is seen as a monitoring mechanism from the agency theory perspective. Corporate governance structure plays an active role as a monitoring mechanism to encourage extensive risk communication in an organisation (Elshandidy & Neri, 2015). However, ownership structure influences the attitudes of corporate governance and CRD, because directors who oversee the preparation of annual reports on behalf of the owners play a vibrant role in risk disclosure (Abraham & Cox, 2007).

Several empirical studies have examined the suitability of agency theory in different contexts in explaining CRD practices (Ntim et al., 2013; Saggar & Singh, 2017). Ntim et al. (2013) employed agency theory to examine the influence of ownership structure on CRD using a sample of 50 non-financial South African firms listed on the JSE. Their findings suggest a positive association between corporate ownership mechanisms (e.g. concentrated ownership) and CRD. The findings support agency theory as a primary explanation for CRD. Similarly, Oliveira et al. (2018) tested agency theory by examining the determinants of CRD using a

sample of 60 non-financial Portuguese and Spanish companies. In agreement with the expectations of agency theory, their reported findings indicate a positive relationship between ownership concentration and CRD practice.

In addition, using a sample of 105 non-financial Egyptian companies, Mokhtar and Mellett (2013) tested agency theory by investigating the effect of competition, corporate governance and ownership structure on CRD. Their findings suggest a positive association between concentrated ownership and CRD, which confirms support for agency theory. However, Abraham and Cox (2007) tested agency theory by analysing the determinants of risk disclosure in the UK using a sample of 100 non-financial listed firms; their results failed to support the expectations of agency theory. Equally, Oliveira et al. (2011) confirmed no support for agency theory consistent with Abraham and Cox (2007) that ownership structure is not significant in explaining CRD using a sample of 81 companies, both listed and unlisted non-financial firms in Portugal.

In another study, Saggar and Singh (2017) examined the relationship between corporate governance and CRD from the lens of agency theory, using a sample of 100 non-financial Indian firms. Their findings suggest a negative association between concentrated ownership and CRD. These findings failed to support the expectations of agency theory. Given the inconsistent results from previous studies, the effect of ownership structure (concentrated ownership) on CRD, through the lens of agency theory, is yet to be substantiated. Empirically, some scholars seem to support agency theory with varying levels of CRD (Ntim et al., 2013; Mokhtar & Mellett, 2013; Sekome & Lemma, 2014; Oliveira et al., 2018), while others fail to support it (Abraham & Cox, 2007; Oliveira et al., 2011; Saggar & Singh, 2017). Thus, the suitability of the theory alone to explain risk disclosure using ownership structure in different contexts is not conclusive.

Notwithstanding its applicability, agency theory has also been challenged on the basis that reducing information asymmetry through risk disclosure in the annual reports is more relevant to financial stakeholders when making investment decisions, explicitly assessing risk-return decisions (Ntim et al., 2013). This implies that agency theory places more importance on financial stakeholders and assumes that other stakeholders are irrelevant and if they happen to benefit from risk disclosure, it is unintentional. The focus on financial stakeholders is a narrow view in that it does not meet societal needs in general (Abraham &

Cox, 2007; Ntim et al., 2013). Thus, the ability of agency theory to explain CRD is limited to only financial stakeholders instead of balancing the interests of all the stakeholders in a firm.

4.2.2 Resource dependency theory

Resource dependency theory was founded by Pfeffer and Salancik (1978) and it was applied in risk disclosure studies (e.g. Barakat & Hussainey, 2013; Al-Hadi et al., 2016). The theory maintains that an organisation that is committed to transparency in enhancing CRD enjoys certain benefits and privileges (Pfeffer & Salancik, 1978). Engaging in CRD is an expensive activity for companies because it exposes them to certain costs (legal costs, financial commitment, completion and proprietary cost which may lead to competition costs) (Pfeffer & Salancik, 1978).

Since it is an expensive undertaking, firms that engage in risk disclosure stand to benefit from access to critical resources such as finance and business contracts through access to the cheaper cost of capital, internal risk management, management expertise, and improved reputation which reduces political costs (Lajili & Zéghal, 2005; Ntim et al., 2013). Pfeffer and Salancik (1978) argue that firms are interest-driven entities that seek to gain, regain and sustain legitimacy by using active choice behaviours to manipulate relevant stakeholders who are crucial resource providers and exert power or influence over them. From the resource dependency perspective, firms wish to manage capital market participants through increasing CRD quality for their strategic reasons.

Resource dependency theory has been employed in empirical literature to examine CRD practices in different contexts (Mokhtar & Mellett, 2013; Ntim et al., 2013; Barakat & Hussainey, 2013; Elamer et al., 2019a). For instance, Elamer et al. (2019a) employed resource dependency theory to examine the impact of multi-layer governance on CRD using a sample of 100 Middle East and North Africa (MENA) financial firms. Their findings support the expectations of resource dependency theory that corporate board mechanism is associated with CRD (e.g. board size and independence). A similar kind of result was obtained by Ntim et al. (2013) in the South African context, who reported a positive association between corporate board mechanisms and CRD (e.g. board size, board diversity, and independence).

Equally, in the Egyptian context, Mokhtar and Mellett (2013) reported a positive association between corporate governance (e.g. CEO duality) and CRD. In addition, Al-Hadi et al. (2016)

examined risk committee, firm lifecycle and market risk disclosures using a sample of 677 Gulf Cooperation Countries (GCC). They reported such association in support of the resource-based view that mature firms have adequate resources to form risk committees with an appropriate size, skills, and independence to enhance their risk disclosure to entice stakeholders such as investors, customers, and suppliers. However, Barakat and Hussainey (2013), using a sample of 85 European Union banks, tested the resource dependence theory by examining the effect of corporate governance on the quality of CRD (measured by operating risk reporting quality), and they reported a negative association.

Similarly, although Elamer et al. (2019a) reported a positive association between ownership structure (e.g. government and family ownership), Sharia supervisory board and CRD, the effect of political stability and absence of violence at the country level was found to be negative and against the resource dependency theory. Empirically, previous literature provides mixed results on the effect of corporate governance mechanisms on CRD using the lens of resource dependence theory. While some scholars seem to support the resource dependence theory with varying levels of CRD (Mokhtar & Mellett, 2013; Ntim et al., 2013; Elamer et al., 2019b), others fail to support the theory (Barakat & Hussainey, 2013). Alone, the ability of the theory to explain CRD using ownership structure in different contexts is therefore not conclusive.

Despite the usefulness of resource dependence theory, its ability to explain and predict CRD behaviour is weakened by implying that corporates are self-interest-driven entities that engage in risk disclosures for strategic motives instead of focusing on accountability and responsibility to a wide range of stakeholders (Lopes & Rodrigues, 2007; Ntim et al., 2013). Just like agency theory, the focus on critical resource providers by resources dependence theory is a narrow view and it limits the ability to explain CRD behaviour in totality.

4.2.3 Signaling theory

The signalling theory was suggested by Akerlof (1970) and developed by Spence (1973) to clarify the information asymmetry in the labour markets. Several studies have embraced the signalling theory in CRD literature (Mokhtar & Mellett, 2013; Elshandidy et al., 2018). The signalling theory is useful for describing the behaviour when two parties (organisations or individuals) have access to different information. The parties are usually the sender of the information and the receiver of the signalled information. The sender must always choose

how to convey the information, and the receiver must always choose how to interpret the signal conveyed. As a result of information asymmetry, organisations are likely to signal or convey certain information to outsiders to show that they are better than their competitors in the market to attract resources and enhance their reputation (Verrecchia, 1983; Oliveira et al., 2010). The theory argues that high-quality firms wish to distinguish themselves from low-quality firms by providing more CRD voluntarily (Merkl-Davies & Brennan, 2007).

According to Elamer et al. (2019a), comprehensive CRD acts as a signal of improved risk management, compliance with standards (IFRS) and regulation (Basel Accords) to enhance banks' reputation. This implies that firms with efficient risk management capacity may disclose more risk information voluntarily to differentiate themselves from other organisations with inefficient risk management. However, according to Elshandidy and Neri (2015), firms with inefficient risk management may also disclose more information to avoid misunderstanding among investors. From the signalling theory perspective, firms wish to manage capital market participants through increasing CRD quality for them to achieve the best prices in shares, which will be reflected in the stock prices and cost of capital.

The suitability of signalling theory in explaining CRD practice has been tested in empirical literature using firm characteristics (Miihkinen, 2012; Domínguez & Gámez, 2014; Elshandidy & Neri, 2015; Saggar & Singh, 2017; Elshandidy et al., 2018). For instance, Buckby et al. (2015) employed signalling theory to assess the determinants of quality of CRD and found a positive relationship in Australia. Their findings also support signalling theory and are consistent with Miihkinen (2012), who found a positive association between firms' risk level and CRD in Finland firms, respectively. In another study, using a sample of 102 financial firms in the Chinese market, Elshandidy et al. (2018) reported that risky firms tend to communicate more risk-related information in line with signalling theory.

However, Saggar and Singh (2017) employed signalling theory and found a negative association between firm profitability and CRD practices in the Indian context. Using a sample of listed non-financial firms on the Madrid Stock Exchange, Domínguez and Gámez (2014) did not find a relationship between corporate characteristics and CRD (e.g. profitability). Equally, Elshandidy and Neri (2015) reported an insignificant relationship between profitability and CRD, using a sample of the United Kingdom and Italian firms. The findings by Saggar and Singh (2017), Domínguez and Gámez (2014) and Elshandidy and

Neri (2015) failed to support expectations of the signalling theory. Given the varied results reported, the ability of signalling theory to explain CRD in different contexts is not conclusive, and further research is needed to provide more insights.

Notwithstanding the applicability of the theory, Helbok and Wagner (2003) provided a contradicting view that managers in low-quality organisations also have incentives to use more risk disclosures to signal or convey their risk management abilities. Moreover, the theory has been criticised for focusing more on the benefits that accrue to the firms rather than the purpose of stakeholder informativeness. Thus, the theory focuses more on what the firms stand to benefit from disclosure rather than communicating information to outsiders for them to make risk-informed decisions. Just like agency theory and resource dependence theory, in signalling theory, the firm is a self-interest-driven entity that pays more attention to financial stakeholders for the firm to benefit from the capital markets than it does other stakeholders.

4.2.4 Stakeholders theory

The theory emphasises relations between the firm and its stakeholders. Ansoff (1965) is considered the pioneer of the term "stakeholder theory", which was later embraced in the mid-80s. According to Freeman (1984), organisations are made up of powerful stakeholder groups crucial for their survival. To gain their approval, organisations use risk disclosure as a tool to manage their informational needs. This implies that the more powerful stakeholders are, the more the organisation must adapt, but who are these powerful stakeholders in a firm, and who determines their powers? Stakeholder groups have evolved over the years; at one point the shareholders or owners were considered to be the primary stakeholders based on Friedman (1962), and the main goal of a firm was to maximise its wealth. However, this definition was considered narrow, and Freeman (1984) expanded it to include other groups such as regulators and other interest groups.

The definition of stakeholder was further expanded to include different categories, for instance, external and internal stakeholders (Carroll,1989), voluntary and involuntary stakeholders (Clarkson, 1995), primary and secondary stakeholders (Clarkson, 1995). The main aspect of different categories of stakeholders is to show the different informational needs. Ullmann (1985) states that stakeholder power is determined by the level of control they have over the resources. Thus, according to the theory, stakeholders' interest motivates

firms to meet the informational needs of various stakeholder groups by communicating more risk-related information **(**Al-Hadi et al., 2016). From the stakeholder perspective, organisations use risk disclosure to manage the expectations of multiple stakeholders such as investors, regulators, government agencies, employees and society among other stakeholder groups (Freeman, 1984; Ntim et al., 2013).

Stakeholder theory has been employed in the empirical literature to examine corporate characteristics variables in different contexts (Amran et al., 2009; Ntim et al., 2013; Saggar & Singh, 2017). For instance, in the South African context, Ntim et al. (2013) confirmed support for the stakeholder theory by investigating the effect of corporate governance mechanisms (e.g. board diversity, board size and board independence). Their findings suggest a positive association between board diversity, board size and board independence and CRD in line with stakeholder theory. In another study, Saggar and Singh (2017) examined the applicability of stakeholder theory using several corporate governance variables (e.g. board size, gender diversity and board independence) and other firm attributes in the Indian context. They found that only two governance variables (e.g. board size and gender diversity) had a positive influence on CRD, consistent with Ntim et al. (2013), while no significant relationship was reported on the impact of board independence on CRD.

Equally, with a sample of 100 non-financial listed firms in Malaysia, Amran et al. (2009) used firm characteristics (e.g. firm size and leverage) to examine the applicability of stakeholder theory in explaining CRD. Their findings suggest that leverage and firm size do not matter. Madrigal et al. (2015) provided a contradicting view that firm size positively influences CRD, using a sample of 35 non-financial listed firms in Spain. From the varied results, alone, stakeholder theory is not sufficient in explaining CRD. In addition, the theory was challenged on the basis that it directs CRD to the most powerful stakeholders, but does not specify these powerful stakeholders.

The theory has also been criticised in situations where it is not easy to identify all the potential stakeholders in a firm (O'Dwyer, 2002). Similarly, the statement that the role of management is to balance the conflicting interest of various stakeholders is not attainable given the countless business stakeholders and their conflicting interests (Sternberg, 1997). According to Donaldson and Davis (1991), stakeholder theory is inconsistent with other theories such as agency theory. Whereas stakeholder theory advocates for shared incumbency

in the roles of CEO and board of directors' chair, agency theory asserts that stakeholder interests require protection by ensuring the independence of the board.

4.2.5 Legitimacy theory

The theory emphasises that organisations are expected to act in a socially responsible manner to gain the approval of goals, access to resources, a place in society and guarantee continued existence (Guthrie & Parker, 1989). The theory relies on the notion that there is a social contract between the organisation and the society which represents countless expectations from the firm (Deegan, 2000). The terms of the contract may either be partly explicit (consist of legal requirements) or partly implicit (consist of community expectations) (Deegan, 2000).

Organisational legitimacy is ensured if the terms of the contract are not breached. Thus, organisations are guaranteed continued existence if their value system (norms and bounds) is consistent with the larger system in which they operate. However, such a right is endangered when there is an actual or potential conflict between the two value systems (Ashforth & Gibbs, 2008). From the legitimacy theory perspective, firms gain, regain and sustain social acceptance and legitimise their operations through engaging in CRD.

Several empirical studies have tested the legitimacy theory (Hassan, 2009; Oliveira et al., 2011; Mokhtar & Mellett, 2013; Al-Hadi et al., 2016; Oliveira et al., 2018). For instance, in the Portuguese context, Oliveira et al. (2011) assessed the CRD practices and their characteristics, and their findings support the legitimacy theory that publicly visible companies, using firm size, significantly positively influence CRD, i.e., firms tend to manage their reputation through CRD. Similar findings were reported by Oliveira et al. (2018) in the Spanish and Portuguese contexts. Oliveira et al. (2018) tested the relationship between public visibility (in terms of firm size) and CRD from the lens of legitimacy theory and found a positive relationship. In another study, using a sample of 677 financial firms from the GCC, Al-Hadi et al. (2016) reported a positive association in support of legitimacy theory. However, Mokhtar and Mellett (2013) failed to support legitimacy theory in the Egyptian context; there was no association reported. This is consistent with Hassan (2009) who investigated the relationship between specific characteristics (in terms of firm size) and level of risk disclosure, using a sample of 41corporations listed in the Dubai Financial Market and found that there was none.

Although several studies provide support for legitimacy theory, the level of support is varied among researchers while others fail to support the theory (Oliveira et al., 2011; Al-Hadi et al., 2016; Mokhtar & Mellett, 2013). Empirically defining CRD using the lens of legitimacy theory from different contexts is not feasible. Furthermore, despite its applicability in different contexts, legitimacy theory is vague in identifying the corporate stakeholders and prioritising financial stakeholders (Deegan, 2000). Another limitation of legitimacy theory in corporate disclosure literature is highlighted by Gray et al. (2009), who argue that the theory is vague in the area of corporate disclosure as it does not inform why disclosure may be selective.

4.2.6 Institutional theory

The institutional theory asserts that organisations continuously seek to gain legitimacy through conforming to pressures arising from the external business environment (DiMaggio & Powell, 1983; Scott, 1995). The theory suggests that organisations are part of the social system that interacts with society and they tend to integrate (Aguilera & Jackson, 2003). Organisations integrate external value systems into their structures and operations to gain legitimacy. Isomorphism explains the reasons underlying the affinity of firms to become homogenous in structures despite operating different technologies (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). Three pillars force organisations towards isomorphism, namely coercive, mimetic and normative (DiMaggio & Powell, 1983).

These three pillars exert the pressures to which organisations respond. The response to such factors shapes managers' decisions on whether to hold back or disclose mandatory and voluntary risk-related information. The coercive pressure stems from legal and political power generated by the government (DiMaggio & Powell, 1983); coercive pressure encourages organisations to observe statutory or mandatory risk disclosures. Thus, coercive pressure influences the firm decision to disclose mandatory risk information. These imply that a firm will respond to changes in regulation and legal environment to gain legitimacy. For instance, listed companies may adopt new risk reporting guidelines in the annual report to comply with new risk disclosure regulations. Mimetic pressure takes place when organisations imitate other successful firms by coping with uncertainties in the business environment (DiMaggio & Powell, 1983).

Normative pressure arises from professional bodies' initiatives and is likely to affect organisations' voluntary risk disclosure decisions (DiMaggio & Powell, 1983). Under

normative pressure, the organisation responds to change occasioned by development and communication by peers through common socialisation (DiMaggio & Powell, 1983). Both mimetic and normative pressure affect voluntary risk disclosure decisions, while coercive pressure affects mandatory risk disclosure decisions. Both legitimacy theory and institutional theory focus on the ability of the firm to gain social acceptance.

Studies from the literature have empirically tested the institutional theory through corporate variables in different contexts and provided inconclusive results such as (Ntim et al., 2013; Oliveira et al., 2018; Hassan, 2009). For instance, in the UAE context, Hassan (2009) found a positive association between corporate industry and CRD in line with institutional theory. Firms use CRD practices to imitate other firms in the industry and not for communicating relevant information to the stakeholders (Hassan, 2009). In the Spanish and Portuguese contexts, Oliveira et al. (2018) employed institutional theory and found a negative relationship between the CRD and corporate governance variables (e.g. board diversity and board size), which is not consistent with Ntim et al. (2013) in the South African context who found larger and diverse boards provide a better connection with a wide variety of stakeholders which enhances corporate legitimacy and reputation.

Given the reported findings, further research is needed to investigate more the suitability of institutional theory to explain CRD in different contexts. Furthermore, the institutional context may prompt organisations to take strategic responses to institutional risk pressures that may lead to purely symbolic rather than substantive risk disclosure in the annual report. For instance, mimicking CRD from the best practice in the industry may lead to standardised disclosures over time, thus resulting in boilerplate CRD, which is less useful to the users (DiMaggio & Powell, 1983; Abraham & Shrives, 2014).

4.3 Multi-theoretical perspective

The review of the literature identified six theories commonly used to study CRD, namely agency theory, resource dependence theory, signalling theory, stakeholder theory, legitimacy theory and institutional theory. Each theory presents a certain aspect of CRD and is limited in its ability to explain the phenomenon in totality. The difference in how different theories motivate CRD is explained by the source or level of external pressure or power which differs from theory to theory. The first level of external pressure identifies financial stakeholders under the agency theory, resource dependence theory and signalling theory as the important stakeholders in firms when communicating risk-related information. This level/source

focuses on financial shareholders as the relevant or key stakeholders and places less relevance on other stakeholders in risk communication.

The second level of influence identifies the public (legitimacy theory) as the relevant stakeholder in a firm when disclosing risk-related information. The third level of influence considers all the stakeholders (financial stakeholders, employees, government, the general public, etc.) (Stakeholder theory), i.e., it takes care of all the information needs of all the stakeholders. The fourth level of influence is the organisational context that firms consider in communicating risk-related information. Organisational context sources include influence by industry leaders and multinationals affiliated with the company (mimetic), influence by the professional firms or big auditing firms (normative) and by regulations and legislation (coercive).

The four sources of external influence, sometimes converge and diverge in explaining CRD. For instance, the focus on financial stakeholders under the economic theories (agency, resource dependence, signalling theory) differs from the focus on the public as the relevant stakeholder (legitimacy theory). Likewise, the view of focusing on the financial stakeholder and the public as relevant stakeholders overlaps with the wider stakeholder theory. This is because both financial stakeholders and the public are part of the many stakeholders in a firm. The difference in how the external pressure exerts influence on the management may explain how prior studies have adopted different theoretical lenses to test the same variable in different contexts and with varied results; for instance, the use of agency theory, resource dependence theory and stakeholder theory to explain the relationship between corporate characteristics and CRD.

From the discussion, the limitations of using a single theory to explain CRD justify a case for use of a wide theoretical lens to study CRD behaviour in totality (Abraham & Shrives, 2014; Elshandidy et al., 2018; Mazumder & Hossain, 2018; Ntim et al., 2013). Furthermore, the theories reviewed present context-specific findings (Abraham & Shrives, 2014; Elshandidy et al., 2018; Mazumder & Hossain, 2018; Ntim et al., 2013), leading to varied results and impairing comparability among researchers. Thus, adopting a multi-theoretical perspective consisting of agency theory, resource dependence theory, stakeholder theory, legitimacy theory and institutional theory minimises the weakness of adopting a single theory.

4.4 Chapter summary

The chapter proposes a multi-theoretical perspective for CRD research studies, especially for use in explaining an organisation's CRD behaviour. These theories are drawn from both economic and political social perspectives to construct an integrated CRD framework that considers convergent features of each theory. The review of theories presents four levels of external pressure. The first level of external pressure identifies financial stakeholders under the economic theories (agency theory, resource dependence theory, and signalling theory) as the important stakeholders in a firm targeted with risk-related information. Managers respond to this level of external pressure from financial stakeholders through risk disclosures to reduce information asymmetry and maximise their wealth for strategic purposes.

The second level identifies the public under legitimacy theory as the important stakeholders targeted in risk disclosures. Managers respond to this level of external pressure from the public by closing the legitimacy gap between the firm and society. The third level of influence identifies all the stakeholders (debtholders, suppliers, employees, government, and general public) as relevant when communicating risk-related information. Managers respond to this group by balancing the risk informational needs of all the stakeholders. However, responding to this group may be challenging in situations where it is not easy to identify all the potential stakeholders in a firm.

The fourth level of influence identified is the institutional environment. This environment includes influence by industry leaders (mimetic), influence by listing laws, regulations and legislations on risk disclosure (coercive) and influence by professional firms or the big auditing firms (normative). Managers respond to this level through complying with new risk disclosure guidelines or regulations, imitating other successful firms in the industry and changing disclosures as a result of communication by peers through socialisation. The paper argues that all perspectives are interrelated and complementary rather than competing in explaining CRD behaviour. Although extant CRD literature supports a case for a comprehensive framework, no study has incorporated the six perspectives in one study to the best of the researcher's knowledge.

CHAPTER FIVE
HYPOTHESIS DEVELOPMENT

5.1 Introduction

The second empirical research question tests the determinants of CRD practice among listed non-financial firms in Kenya. The chapter presents independent variables based on theoretical perspectives discussed in chapter four (multi-theoretical perspective) and testable hypotheses. The chapter is organised as follows: Section 5.1 presents the introduction; Section 5.2 presents criteria for selecting the independent and control variables while Section 5.3 discusses the association between CRD and firm-specific factors, and Section 5.4 discusses the association between CRD and board characteristics. Section 5.5 discusses the association between CRD and ownership structure and Section 5.6 presents the control variables, whereas Section 5.7 presents the moderating variable. Furthermore, Section 5.8 presents the conceptual framework and Section 5.9 presents the chapter summary.

5.2 Criteria for selecting the Corporate Characteristics Variables

The study assumed that there is a perceived association between CRD and corporate characteristics. The following criteria were used to select and categorise the independent variables. First, the variables can be measured reliably; secondly, they have both theoretical and empirical backing; thirdly, they have a degree of importance in the Kenyan context and lastly, they can be found easily so that cost incurred in finding them is not unreasonable (Tabachnick & Fidell, 2013). The identified corporate characteristics variables were categorised into three, namely firm characteristics, board characteristics and ownership structure. Likewise, the study identified moderating variables to test the regulatory influence of CRD guidelines in Kenya. In addition, four control variables were identified from the literature to take care of omitted variables, namely audit quality, corporate governance quality, industry type and cross-listing. Based on the second and third empirical research objectives, several hypotheses were formulated for each category and developed to test the applicability of disclosure theories among listed non-financial firms in Kenya by examining the association between quality CRD and corporate characteristics.

5.3 Firm-specific factors and CRD practice

5.3.1 Firm size

Agency theory suggests that large companies tend to mitigate agency costs and information asymmetry through CRD (Jensen & Meckling, 1976; Watts & Zimmerman, 1983). Equally, resource dependence theory asserts that large firms engage in risk disclosure to gain access to critical resources from the capital markets (Pfeffer & Salancik, 1978). This implies that companies provide risk and risk-related information to benefit from good relations with the capital providers. Similarly, legitimacy theory suggests that publicly visible companies tend to disclose risk and risk-related information to maintain their public image or gain legitimacy from society (Oliveira et al., 2011). This is based on the notion that there is a social contract between the organisation and society which represents countless expectations from the firm (Deegan, 2000). In the same spirit, stakeholder theory suggests that large firms are accountable to a wide range of stakeholders who are critical and have high expectations, such as risk disclosure (Mbithi et al., 2020). In the same circuit, signalling theory asserts that big firms have a large analyst following; hence, they resort to risk disclosure to manage their expectations (Elshandidy & Neri, 2015).

Notwithstanding the different theoretical perspectives explaining/predicting CRD behaviour using firm size, the literature presents inconclusive/inconsistent findings between firm size and CRD practice. For instance, Miihkinen (2012), Elzahar and Hussainey (2012), Elshandidy and Shrives (2016), Sekome and Lemma (2014), Elshandidy and Neri (2015), Tauringana and Chithambo (2016), Netti (2019), Saggar and Singh (2017), Gonidakis et al. (2020) and Mbithi et al. (2022a) reported a positive association between firm size and CRD practice, while Domínguez and Gámez (2014) found a negative relationship. Besides, Rajab and Handley-Schachler (2009), Hassan (2009) and Mokhtar and Mellett (2013) reported an insignificant relationship. The difference in findings could be explained by the meaning and measurement of CRD, the theoretical lens and framework used to study CRD, and the jurisdiction where the study was carried out. Given the above, the following hypothesis was formulated for the study:

H01: Firm size positively influences quality CRD among listed non-financial firms in Kenya.

5.3.2 Leverage

One form of an agency relationship is between debtholders and equity holders (Jensen & Meckling, 1976). Based on the information asymmetry assumption, agency theory suggests that debt level increases monitoring and scrutiny by the debt holders (Ahmed & Nicholas, 1994; Domínguez & Gámez, 2014). To manage the agency cost and information asymmetry, companies resort to the risk and risk-related disclosures. This helps debtholders to assess firms' financial health, ability to monitor and manage risks arising from leverage (Craswell & Taylor, 1992). In this regard, high-levered firms have incentives to provide risk and risk-related disclosures than low-levered firms to manage debtholders' expectations. Equally, on signalling theory, Elshandidy et al. (2013) assert that high-levered companies provide risk information in the annual report to meet the needs of debtholders. This implies that risk and risk-related disclosures are used to signal debt management ability to lenders. Similarly, high-levered firms provide risk and risk-related information voluntarily to reassure debtholders or to prolong the repayment period (Habbash et al., 2016). Likewise, some long-term debts have restrictive covenants and firms use risk disclosure to show compliance (Habbash et al., 2016).

However, studies on leverage and CRD provide mixed findings. For instance, Taylor et al. (2010), Oliveira et al. (2011), Buckby et al. (2015), Tauringana and Chithambo (2016), Muturi (2018), Saggar et al. (2021) and Mbithi et al. (2022a) found a positive association, while Dobler et al. (2011), Miihkinen (2012), Ntim et al. (2013) and Habbash et al. (2016) reported a negative association. Besides, Abraham and Cox (2007), Rajab and Handley-Schachler (2009), Elzahar and Hussainey (2012), Saggar and Singh (2017) and Netti (2019) reported no association between leverage and CRD practice. It is worth noting that most studies were done in developed countries and only a few in developing countries. Moreover, the combination of theories and measurement of variables varies across the studies. Despite the conflicting findings, several reasons justify the positive association. Given the above, the following hypothesis was formulated for the study:

H02: Leverage positively influences quality CRD among listed non-financial firms in Kenya.

5.3.3 Profitability

Profitability is a measure of management effectiveness and success in running the firm (Habbash et al., 2016; Madrigal et al., 2015). In this regard, high profits provide an incentive for companies to exploit this success to justify managerial compensation, improve the firm's reputation and enhance investor confidence (Habbash et al., 2016; Singhvi & Desai, 1971; Barako, 2007). Based on agency theory, well-performing or profitable firms are exposed to higher levels of risk. As a result, different forms of agency conflicts may arise between the firm and stakeholders (e.g. management and shareholders). To minimise information asymmetry, managers engage in risk and risk-related disclosure (Marzouk, 2016). Similarly, profitable firms have an incentive to provide risk disclosure to minimise the risk of being viewed negatively by the capital market participants. In the same vein, risk disclosure provides sufficient evidence to investors and other stakeholders about the firm's performance (UNCTAD, 2017; Mbithi et al., 2020). Likewise, signalling theory asserts that well-performing firms provide better risk disclosure to distinguish themselves from loss-making firms (Helbok & Wagner, 2003).

In the same spirit, stakeholder theory indicates that profitable firms are visible to a wide range of stakeholders. Hence, they have a greater incentive to provide risk and risk-related information to justify their performance (Inchausti, 1997). Besides, legitimacy theory suggests that profitable firms disclose risk information to legitimise their skills and obtain approval from shareholders (Madrigal et al., 2015). Despite the elaborate literature on profitability and CRD practice, studies provide mixed findings (Ahmed & Courtis, 1999). For instance, Ntim et al. (2013), Habbash et al. (2016), Seta and Setyaningrum (2017), Muturi (2018) and Ibrahim et al. (2019) found a positive association, while Miihkinen (2012), Allini et al. (2016) and Saggar and Singh (2017) found a negative association. Futhermore, Domínguez and Gámez (2014), Madrigal et al. (2015), Elzahar and Hussainey (2012) and Tauringana and Chithambo (2016) reported insignificant association. Despite the conflicting findings between profitability and CRD, several reasons justify the positive association. Thus, the following hypothesis was formulated for the study:

H03: Profitability positively influences quality CRD among listed non-financial firms in Kenya.

5.3.4 Liquidity

Liquidity represents firms' ability to meet short-term financial obligations when they become due (Al-Maghzom, 2016). Inability to meet short-term financial obligations could lead to loss of confidence in the market between lenders and creditors (Al-Maghzom, 2016). Similarly, signalling theory indicates that high-performing firms wish to distinguish themselves from less-performing firms through risk disclosure (Elzahar & Hussainey, 2012). This implies that high-liquid firms provide high-quality CRD to signal or communicate their strong financial position and skills in managing liquidity risks to lenders and creditors (Akerlof, 1970; Elshandidy et al., 2013). However, previous literature on the association between liquidity and CRD is limited. Besides, the findings are inconsistent or inconclusive. For instance, using a sample of 72 listed firms in the UK, Elzahar and Hussainey (2012) found that liquidity level does not influence risk disclosure practice. Similarly, Mangena and Pike (2005) reported an insignificant association between liquidity level and financial disclosures using a sample of 262 UK listed firms. Equally, Elzahar and Hussainey (2012), Mokhtar and Mellett (2013), Alfraih and Almutawa (2014), Muturi (2018), Elghaffar et al. (2019) and Aljifri et al. (2014) found no association between liquidity level and corporate disclosures. Nevertheless, Elamer et al. (2019a), Elamer et al. (2019b) and Gonidakis et al. (2020) found a positive association, while Wallace et al. (1994) found a negative association between liquidity and risk disclosure. Given the above, the following hypothesis was formulated for the study:

H04: Liquidity positively influences quality CRD among listed non-financial firms in Kenya.

5.3.5 Firm growth

Based on agency theory, high-growth firms experience greater information asymmetry and agency costs than low-growth firms (Gaver & Gaver, 1993). To minimise agency costs, high-growth firms provide more risk and risk-related disclosure. Thus, the firm's growth is positively associated with risk and risk-related disclosure. The agency theory perspective is consistent with Khurana et al. (2006) who argue that disclosure enhances a firm's ability to obtain financing by reducing information asymmetry. Similarly, signalling theory asserts that firms with high growth potential provide superior disclosure to signal that they can manage risk effectively (Elshandidy et al., 2013). This is based on the notion that high growth is associated with increased capital investment and risks. In the same spirit, Gul and Leung (2004) suggest that high-growth firms provide more risk information to prove that their stock is not overvalued by the market. In the same circuit, stakeholder theory asserts that growth is

associated with an increase in firm size. In theory, large firms are visible to a wide range of stakeholders, and firms use risk and risk-related disclosures to manage their information needs (Dobler et al., 2011; Madrigal et al., 2015).

Besides, under the legitimacy theory, publicly visible companies tend to disclose risk and risk-related information to maintain their public image or gain legitimacy from society. However, empirical studies on firm growth and risk disclosure provide mixed findings. For instance, Saggar and Singh (2017) found that firm growth is positively related to risk disclosure. Elshandidy et al. (2013) concluded that high-growth firms have incentives to disclose risk information to signal that they can manage risk effectively. Similarly, Elshandidy et al. (2018) found that in China, high-growth firms are more motivated to provide quality risk information than low-growth firms. Equally, other studies support the positive association (Chavent et al., 2006; O'Sullivan et al., 2008). Conversely, Ntim et al. (2013) report that the association between firm growth and quality of CRD is not significant in the South African context**.** Given the above, the following hypothesis was formulated for the study:

H05: Firm growth positively influences quality CRD among listed non-financial firms in Kenya.

5.3.6 Operating risk

Signalling theory suggests that firms disclose risk and risk-related information to minimise stakeholders' uncertainty about the firm (Elshandidy et al., 2018). This is based on the assumption that risk disclosure provides a better assessment of a firm's risk profile and future returns by investors. In the same spirit, risky firms provide quality risk and risk-related information to avoid incurring unnecessary costs (Abraham & Cox, 2007; Hassan, 2009; Elshandidy et al., 2018). This suggests that managers of risky firms use risk and risk-related disclosures to explain policies and strategies put in place to manage such risks. However, Linsey and Shrives (2006) provide a contrary view that operating risks could hinder managers from providing significant or relevant risk information to the stakeholders. Similarly, agency theory asserts that firms with high operating risk have more incentives to provide risk disclosures than firms with low operating risk to minimise agency costs (Jensen & Meckling, 1976).

Nonetheless, empirical studies provide mixed findings on the relationship between operating risk and risk disclosure. For instance, Elshandidy and Neri (2015) found that high-risk firms have the incentive to provide more information in the annual report, to meet the investor expectation of how the firm is dealing with the risks. Likewise, Deumes (2008) and Elshandidy et al. (2013) report that high-risk firms have more incentives to disclose risks than less risky firms to avoid misunderstanding by stakeholders. Equally, Ntim et al. (2013) found that operating risk is positively associated with risk disclosures in South Africa. Moreover, Miihkinen (2012) found that business risk significantly influences CRD in Finland. Furthermore, Hassan (2009) reports a significant association in Egypt. Given the above, the following hypothesis was formulated for the study:

H06: Operational risk positively influences quality CRD among listed non-financial firms in Kenya.

5.3.7 Capital expenditure

Agency theory indicates that increased capital spending is associated with a firm's growth; this is based on the view that a firm's growth increases monitoring and scrutiny, resulting in more disclosure (Albassam, 2014). This suggests that an increase in capital expenditure enhances more monitoring through enhanced corporate governance practices to protect shareholders' wealth (Conyon & He, 2011; Pearce & Zahra, 1992). However, previous studies on the association between capital expenditure and CRD practice are limited. Besides, they suggest a weak association between capital expenditure and disclosure. For instance, Ntim et al. (2013) found that capital expenditure is not associated with risk disclosures in South Africa. Similarly, Ntim and Soobaroyen (2013) found a weak relationship between corporate disclosures and capital investment in South Africa. Furthermore, Albassam (2014) reports no association between capital expenditure and voluntary disclosure in Saudi Arabia. Given the above, the following hypothesis was formulated for the study:

H07: Capital expenditure positively influences quality CRD among listed non-financial firms in Kenya.

5.4 Board characteristics and CRD practice

5.4.1 Board activity

Risk disclosure is a board activity, and frequent meetings may imply that the board devotes more time to the development of corporate strategies, management monitoring (Oliveira et al., 2018), financial reporting and its quality (Allini et al., 2016). Agency theory indicates that a board meeting is crucial in reducing information asymmetry between managers and directors (Laksmana, 2008; Domínguez & Gámez, 2014). This implies that active boards are more likely to enforce financial reporting and monitoring, leading to improved risk disclosure. However, studies on risk disclosure and board activity are minimal. In addition, they present inconsistent and inconclusive findings. For instance, Banghøj and Plenborg (2008) and Allegrini and Greco (2013) found a positive association between board activity and CRD. However, Domínguez and Gámez (2014), Allini et al. (2016), Saggar and Singh (2017) and Adib et al. (2019) found no association between board activity and corporate disclosures. Despite the conflicting findings between board meetings and CRD practice, several reasons justify the positive association. Thus, from the above discussion, the following hypothesis was formulated:

H08: Board activity positively influences quality CRD among listed non-financial firms in Kenya.

5.4.2 Board size

The board of directors plays a central role in the governance of listed public companies (Mokhtar & Mellett, 2013; Ntim et al., 2013). Under agency theory, a larger board size increases diversity in the board room in terms of expertise (e.g. accounting and finance background), an experience which is associated with increased board monitoring, scrutiny and positive influence on risk disclosures (Elshandidy & Neri, 2015; Mokhtar & Mellett, 2013; Ntim et al., 2013). However, a large board size may lead to communication problems which can affect board effectiveness in monitoring and controlling board activities (Jensen & Meckling, 1976). Resource dependence and stakeholder theory suggest that large board size is associated with diversity and stakeholder representation from different backgrounds, which increases a firm's ability to access the external market and reduces uncertainty. Easy access to capital markets facilitates securing finance and contracts (Freeman, 1984; Lajili & Zeghal, 2005).

Similarly, stakeholder theory indicates that a larger board size increases diversity and stakeholder representation, which enhances corporate performance and disclosure, such as CRD (Raj & Handley-Schachler, 2009; Suchman, 1995). However, extant literature presents contracting findings on the effect of board size on risk disclosure. For instance, on one hand, Elshandidy and Neri (2015), Mokhtar and Mellett (2013), Ntim et al. (2013) and Saggar and Singh (2017) found a positive association between board size and risk disclosure. On the other hand, Guest (2009) found a negative association, while Elzahar and Hussainey (2012) and Allini et al. (2016) found that board size has no significant influence on risk disclosure. In Kenya, the CMA Governance Code does not recommend the size; it only states that the board should be neither too small nor too large to compromise the board's effectiveness. Despite the conflicting findings between board size and CRD practice, several reasons justify the positive association. Thus, from the above, the following hypothesis was formulated:

H09: Board size positively influences quality CRD among listed non-financial firms in Kenya.

5.4.3 Board gender diversity

Board diversity refers to the varying profiles that may exist amongst board members in terms of age, ethnicity, gender, education, occupation and religion (Allini et al., 2016; Ntim et al., 2013). Board diversity influences board decision-making and effectiveness (Mahadeo et al., 2012; Moloi et al., 2021). Among the diversity variables, gender is the most debated element and refers specifically to the presence of female directors on the boards (Moloi et al., 2021; Dutta & Bose, 2006). Agency theory indicates that board diversity in terms of gender enhances board monitoring and control through board independence (Cabedo & Tirado, 2004; Elzahar & Hussainey, 2012). Similarly, resource dependence theory asserts that board diversity along the lines of gender links the firm to the external market, which helps in securing capital (Oliveira et al., 2011; Pfeffer & Salancik, 1978).

In addition, stakeholder theory suggests that board gender diversity is associated with linking the firm to the stakeholders, which provides more growth opportunities. This implies that female directors may act as an important governance mechanism in stimulating the board's effectiveness through risk disclosure. Thus, female directors may be more inclined to serve the needs of different stakeholder groups. However, the literature presents mixed findings on the effect of board gender diversity on risk disclosure. For instance, Carmona et al. (2016), Allini et al. (2016), Ntim et al. (2013), Saggar and Singh (2017), Salem et al. (2019),

Bufarwa et al. (2020) and Khandelwal et al. (2020) found a positive association, while Allini et al. (2014) found a negative association between gender diversity and risk disclosure. In Kenya, the promulgation of the constitution underscored the importance of gender equality (Government of Kenya, 2010). From the above, the following hypothesis was formulated:

H10: Board gender diversity positively influences quality CRD among listed non-financial firms in Kenya.

5.4.4 Board independence

Board independence represents the presence of independent non-executive directors in the board room (Ibrahim et al., 2019). Based on agency theory, executive directors may lack enough incentive to disclose risk and risk-related information voluntarily. Therefore, their behaviour is monitored by independent non-executive directors, which increases the board's decision-making ability and effectiveness (Ntim et al., 2013). This implies that the presence of independent non-executive directors positively influences CRD practice. However, studies have cautioned that independent non-executive directors may not be prepared to pay attention to the affairs of the firm given their presence in different firms, which may negatively affect their effectiveness in monitoring and controlling boards. Likewise, under the legitimacy theory, a legitimacy gap may be created by the separation between ownership and control (Jensen & Meckling, 1976). In this regard, non-executive directors help to bridge the gap through greater risk and risk-related disclosure in the annual report. Thus, shareholders introduce non-executive directors to represent other stakeholders and enhance legitimacy by signalling a match between corporate and societal values (Freeman & Reed, 1983; Edkins, 2009).

Similarly, stakeholder theory indicates that non-executive directors may also be used to represent the interest of other stakeholders (employees and society). This introduces checks and balances that enhance board effectiveness in decision-making (Amran et al., 2009; Chen & Roberts, 2010). This implies that independent directors act as a significant governance mechanism in serving the needs of all stakeholders. However, risk reporting literature provides mixed findings on the effect of board independence on CRD. For instance, Abraham and Cox (2007), Ntim et al. (2013) and Oliveira et al. (2018) found a positive association between board independence and risk disclosure. However, Guest (2009) found a negative association between board independence and risk disclosure, while Allini et al. (2016), Elzahar and Hussainey (2012), Domínguez and Gámez (2014), Saggar and Singh (2017),

Ibrahim et al. (2019) and Netti (2019) found that board independence has no statistically significant influence on CRD practice. In Kenya, the Corporate Governance Code requires the board to be well balanced, comprising of executive and at least one-third of non-executive and independent directors who benefit from diverse skills and reduce members dominating in the decision-making process. From the above, the following hypothesis was formulated:

H011: Board independence positively influences quality CRD among listed non-financial firms in Kenya.

5.5 Ownership structure and CRD practice

5.5.1 Managerial ownership

Agency theory suggests that managerial ownership enhances effective monitoring and control, which reduces information asymmetry (Fleming et al., 2005). This is argued by the alignment or convergence between management and shareholders' interest (Jensen & Meckling, 1976). It suggests that the potential conflict between shareholders and managers is almost zero when the firm is owned and managed by the insiders and that there is a positive association between equity agency conflicts and the separation of ownership and control (Jensen & Meckling, 1976). Eng and Mak (2003) advance a contrary argument that managers may be driven by selfish interests to pursue their gains, by taking advantage of insider information at the expense of other shareholders. In this sense, lower managerial ownership minimises their incentive to provide monitoring and control (agency theory).

Empirically, previous studies provide mixed findings on the effect of managerial ownership on CRD practice. For instance, Akhtaruddin and Haron (2010) indicate a negative association. In a recent study, Salem et al. (2019) found a negative relationship between managerial ownership and risk disclosure in Tunisia. Similarly, Eng and Mak (2003) and Htay et al. (2011) found a negative relationship between risk disclosure and managerial ownership in Singapore and Malaysia, respectively. However, Chakroun and Hussainey (2014) found that managerial ownership had a positive relationship with disclosure quality in Tunisia. In addition, Albassam (2014) found a positive association between managerial ownership and voluntary corporate disclosure in Saudi Arabia. Unlike other studies indicating association, Kamaruzaman et al. (2019) reported no relationship in Malaysia. From the above, the following hypothesis was formulated:

H12: Managerial ownership positively influences quality CRD among listed non-financial firms in Kenya.

5.5.2 Retail ownership

Retail ownership represents the percentage of shares held by individual investors in a company. Unlike institutional investors, retail investors have no incentive to monitor and influence corporate reporting (Abraham & Cox, 2007). Similarly, agency theory indicates that institutional investors tend to have a high proportion of ownership, which provides extra incentive to monitor and influence CRD practice. This implies that retail investors are less powerful, and firms with retail ownership provide fewer risk disclosures than firms with institutional ownership. Equally, Ntim et al. (2013) allude that retail investors are characterised by dispersed and insignificant ownership, which can be sold easily. This implies that, unlike institutional investors, they are not interested in the firm's strategic decisions such as long-term investments and disclosure (Ntim et al., 2013).

Furthermore, Ntim et al. (2012) examined listed companies in South Africa and reported that voluntary disclosure is high in firms with higher institutional ownership than firms with lower institutional ownership. This indicates that firms with institutional ownership provide more risk disclosures than firms with retail ownership. Equally, using a sample of 23 countries, Aggarwal et al. (2011) found that institutional ownership enhances risk disclosures. Using a sample of 53 listed firms in Kenya, Barako et al. (2006) found that institutional ownership positively influences a firm's transparency. Despite the influential role played by corporate ownership as an external monitoring mechanism in improving risk disclosure, studies have not examined the relationship between retail ownership and risk disclosure. The present study offers evidence of this relationship in Kenya where ownership is mostly institutional investors. Based on the above, the following hypothesis was formulated for the study:

H13: Retail ownership negatively influences quality CRD among listed non-financial firms in Kenya

5.5.3 Foreign ownership

According to resource dependence theory, foreign investors are associated with an enhanced network which facilitates company growth and success (Pfeffer & Salancik, 1978). Agency theory suggests that firms mitigate potential information asymmetry between insiders (managers) and outsiders (foreigners) through risk disclosures (Jensen & Meckling, 1976; Rhodes & Soobaroyen, 2010). Foreign shareholders have less information about the firm than domestic shareholders (Grassa et al., 2020). This suggests that the monitoring role of foreign investors is difficult compared to their domestic counterparts. Therefore, managers will respond to the pressure from foreign investors by providing quality disclosures (CRD). Equally, the institutional theory asserts that companies provide CRD in line with the global practices to legitimise their structure and operations (El-Diftar et al., 2017).

In addition, foreign investors are well informed about financial market regulations than their domestic counterparts (Grassa et al., 2020). This may force managers to imitate the CRD practices of foreign companies (mimetic isomorphism). Furthermore, foreign investors tend to bring their management style, culture and place a high premium on CRD transparency (Amran et al., 2008). Thus, CRD is higher in the case the firm is controlled by foreign investors. However, extant literature provides contrasting views. For instance, Haniffa and Cooke (2005), Barako et al. (2006), Muttakin and Subramaniam (2015) and Grassa et al. (2020) found that foreign ownership positively affects corporate disclosure, whilst Buckby et al. (2015) and Saggar and Singh (2017) found a negative association. Besides, Mousa and Elamir, (2014) found an insignificant relationship. From the above, the following hypothesis was formulated:

H14: Foreign ownership positively influences quality CRD among listed non-financial firms in Kenya.

5.5.4 Block ownership

Agency theory suggests that firms with concentrated ownership provide less CRD than firms with diffused ownership (Jensen & Meckling, 1976). On one hand, concentrated ownership is associated with increased monitoring, controlling and reduced information asymmetry (Eng & Mak, 2003). On the other hand, dispersed ownership is associated with agency problems between the managers and shareholders; managers of these firms are more likely to engage in CRD to meet the disclosure needs of the shareholders (Miihkinen, 2012; Beretta & Bozzolan, 2004). Based on the foregoing, concentrated ownership solves agency problems and

consequently reduces the need for CRD. Likewise, large shareholders are more powerful, controlling and have access to private information than small shareholders (Nagata & Nguyen, 2017). Therefore, to maintain their informational advantage, they may discourage disclosures such as CRD. Similarly, resource dependence theory suggests that corporate ownership is a resource for organisational success. More specifically, block investors have unrestricted access to capital markets and the resources critical for the firm's success (Pfeffer & Salancik, 1980; Bebchuk & Cohen, 2005). Thus, block shareholders reduce the need for voluntary disclosures, such as CRD (Ntim & Soobaroyen, 2013). Nevertheless, the literature presents mixed findings. For instance, Abraham and Cox (2007), Ntim et al. (2013), Saggar and Singh (2017) and Mokhtar and Mellett (2013) found a negative association, while Taylor et al. (2010) and Bufarwa et al. (2020) found a positive association. In addition, other studies (e.g. Konishi and Ali, 2007; Netti, 2019) found an insignificant relationship. From the above, the following hypothesis was formulated:

H15: Block negatively ownership neg influences quality CRD among listed non-financial firms in Kenya.

5.5.5 Government ownership

Agency theory suggests that firms mitigate potential information asymmetry and agency costs between insiders (managers) and outsiders (government) by providing risk disclosures (Jensen & Meckling, 1976; Rhodes & Soobaroyen, 2010; Ntim et al., 2013). This implies that government ownership increases risk disclosure through enhanced governance. However, studies have contrasted that government presence may be detrimental to effective internal monitoring and risk disclosure decisions (Hou & Moore, 2010). Similarly, resource dependence theory suggests that companies win the government as an influential stakeholder to access the capital and other critical resources through risk disclosures (Branco & Rodrigues, 2006; Pfeffer & Salancik, 1978; Ntim et al., 2013). Equally, stakeholder theory suggests that companies with government ownership will seek to provide risk disclosures to win government support as critical stakeholders (Freeman, 1984; Freeman & Reed, 1983; Ntim et al., 2013).

Furthermore, institutional theory indicates that companies provide risk disclosures to comply with the current regulations (coercive isomorphism) and legitimise their structure and operations. For instance, complying with recent changes in the Company's Act in Kenya requires companies to state the principle risk affecting their operations under the Business

Review section of the annual report. However, state-owned enterprises have less incentive to adopt good governance and disclosure practices such as CRD; this is because they have easier access to different capital sources (Eng & Mak, 2003). However, previous studies provide contrasting views. For instance, Eng and Mak (2003), Ntim et al. (2013), Habtoor et al. (2019) and Elamer et al. (2019a) found that government ownership positively affects risk disclosure, while Dam and Scholtens (2012) and Allini et al. (2016) found that government ownership negatively influences risk disclosure. Besides, Elshandidy et al. (2018) found no association between state ownership and CRD. From the above, the following hypothesis was formulated:

H16: Government ownership positively influences quality CRD among listed non-financial firms in Kenya.

5.6 Control variables

The study included several control variables to mitigate any potential endogeneity through the omitted variables (Albassam, 2014; Elamer et.al, 2019a; Elamer et al., 2019b). For instance, based on legitimacy theory, the big four audit firms are assumed to have high reputational capital at stake and are associated with clients who are in good standing in the business community (Sekome & Lemma, 2014; Yatim, 2010). However, studies on the association of audit quality with risk disclosure provide mixed findings. For instance, Alzead (2017), Ntim et al. (2013), Mokhtar and Mellett (2013), Sekome and Lemma (2014 and Elshandidy et al. (2018) found a positive association while Beretta and Bozzolan (2004) and Buckby et al. (2015) found a negative association. Companies in the same industry are expected to face the same competition; market conditions are assumed to adopt similar guidelines for disclosure/reporting (Marzouk, 2016). Nonetheless, studies on the association between industry and risk disclosure provide mixed findings. For instance, Lajili and Zéghal (2005), Marzouk (2016) and Sekome and Lemma (2014) found positive association while Abraham and Cox (2007), Beretta and Bozzolan (2004) and Domínguez and Gámez (2014) found an insignificant relationship.

Cross-listing gives firms opportunities to access alternative sources of finance. This motivates directors to provide more risk and risk-related information in the annual reports. To make their securities more attractive, directors need to send good signals about different risks, risk management activities, and operations' sustainability. However, previous literature is mixed on the effect of cross-listing on risk disclosure. For instance, Mangena and Pike (2005) and

Rajab and Handley-Schechter (2009) found a positive association while Taylor et al. (2010) found that overseas stock exchange listing is negatively associated with financial risk management disclosure patterns. Lastly, corporate governance quality enhances corporate governance standards and is defined in terms of audit committee characteristics, board structure, board activities and board diversity (Appendix VII) (Mathuva et al., 2019). Ntim et al. (2013) report a positive association between governance quality and risk disclosure. However, Bufarwa et al. (2020) found an insignificant association between corporate governance committees and financial risk disclosure in the UK. The corporate governance index was used to measure corporate governance quality, in line with Cornelius (2005) and Mathuva et al. (2019).

5.7 Moderating variable

Institutional theory indicates how firms manage institutional pressures imposed on them when determining whether to make coercive (regulation), normative (professional bodies) or mimetic choices (industry peers) (DiMaggio & Powell, 1983). Regulators have a significant influence on the implementation of any regulatory framework (Hyndman et al., 2004). Nonetheless, studies provide conflicting results regarding the effectiveness of regulations on risk disclosure practices. For instance, Roulstone (1999) provides evidence of the coercive effect of FRR No. 48 on market risk reporting in the US. Equally, Miihkinen (2012) reports that the Finnish standard had a significant effect on risk disclosure. In Portuguese credit institutions, Oliveira et al. (2011a) report that the adoption of IAS/IFRS had a significant effect on risk disclosure. Similarly, Tahat et al. (2016) found a major improvement in risk reporting after the implementation of IFRS 7 in Jordan. In Italy, Leopizzi et al. (2019) investigated the influence of the European Union Directive (2014/95/EU) on non-financial risk disclosure (NFRD). In their findings, they report that NFRD improved after the implementation of the EU Directive (2014/95/EU).

In Poland, Matuszak and Różańska (2021) explored the influence of the European Union Directive on non-financial reporting and found a positive association. However, Buckby et al. (2015) report low conformance with the Australian Stock Exchange Corporate Governance Principles and Recommendations (ASX CGPR). Likewise, Madrigal et al. (2015) found no statistically significant association between implementation of the COSO framework and risk disclosure in Spain. In Kenya, the Companies Act of 2015 was enacted to include disclosure of key risks facing the company under the Business Review section (Government of Kenya,

2015b). This meant that, from 2015, listed firms were mandated to provide for CRD in the annual report. Based on the foregoing, it can be concluded that the Companies Act of 2015 is an initiative by the regulator to improve the quality of CRD by listed firms in Kenya. Thus, the study developed the following hypothesis:

H17: The Companies Act of 2015 moderates the association between CRD determinants and the quality of CRD.

5.8 Conceptual framework

Figure 2.1 below depicts the relationship between the dependent variable and independent variables. The dependent variable for the study was the quality of CRD (weighted and unweighted measures). The independent variables were categorised as firms' specific factors (firm size, leverage, profitability, liquidity, firm growth, operating risks and capital expenditure), board characteristics (board activity, board size, board diversity and board independence) and ownership structure (managerial ownership, retail ownership, block concentration, foreign ownership and government ownership). The control variables include industry type, audit quality, cross-listing, and corporate governance quality. The amended Kenya Companies Act of 2015 was treated as a moderating variable.

Figure 2.1: Conceptual framework

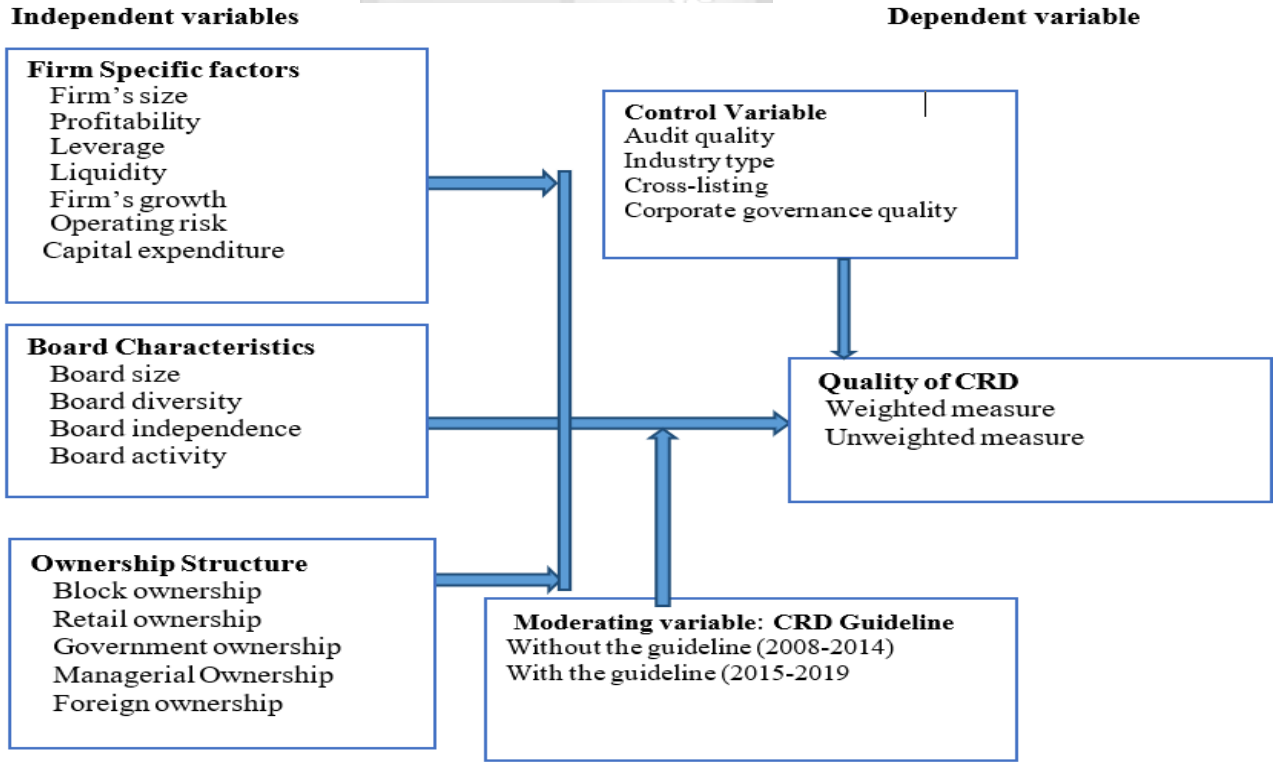


Table 2.2: Operationalisation of the Variables

Variable	Measurement	Source	Supporting theory
Dependent Variable			
Quality of CRD	ratio of actual items to total items in the disclosure index using a range	Elshandidy and Neri (2015);Ntim et al. (2013);Mokhtar and Mellett (2013) ; Oliveira et al. (2018)	Stakeholder theory, agency theory, signalling theory, resource dependence theory, legitimacy theory and institutional theory
Independent variables			
Firm Specific factors			
Firms size	natural logarithms of total assets	Elshandidy and Shrives (2016); Sekome and Lemma (2014);Elshandidy and Neri (2015); Saggar and Singh (2017)	Agency theory , resource dependence theory , stakeholder theory , legitimacy theory and signalling theory
Leverage	debt to equity ratio	Taylor et al. (2010); Oliveira et al.(2011); Buckby et al. (2015)	Agency theory and signalling theory
Profitability	ratio of net income divided by shareholders equity	Miihkinen (2012); Oliveira et al. (2011); Domínguez et al. (2014); Madrigal et al.(2015)	Agency theory, signalling theory, stakeholder theory and legitimacy theory
Liquidity	ratio of current asses to total liabilities.	Elzahar and Hussainey (2012);Mangena and Pike (2005)	Signalling theory
Firms growth	percentage of the current year's sales minus the previous year's sales	Ntim et al. (2013); Albassam (2014)	Agency theory , signalling theory and stakeholder theory and legitimacy theory
Operating risk	standard deviation of the operating profit	Ntim et al. (2013); Albassam (2014)	Agency theory and signalling theory
Capitalexpenditure	percentage of capital expenditure to total assets	Ntim et al. (2013); Albassam (2014)	Agency theory
Board characteristics			
Board Size	natural log of the total number of directors on the board of a company.	Elshandidy and Neri (2015); Mokhtar and Mellett (2013); Ntim et al. (2013); Oliveira et al. 2012)	Agency theory, resource dependence theory and stakeholder theory
Board Independence	percentage of independent non-executive directors to the total number of directors on the board of a firm	Abraham & Cox (2007); Ntim et al. (2013); Oliveira et al. (2018)	Agency theory, stakeholder theory and legitimacy theory
Board gender Diversity	percentage of male and female to the total number of directors on the board of a company	Allini et al. (2016); Ntim et al. (2013)	Agency theory, resource dependency theory and stakeholder theory
Board Activity	number of the board meeting in a year.	Allini et al. (2016);Saggar and Singh (2017)	Agency theory
Ownership structure			
Managerial Ownership	percentage of shares owned by managers to total ordinary shareholding	Akhtaruddin and Haron (2010);Oliveira et al. (2011);Nagar et al. (2003)	agency theory
Retail ownership	percentage of shares owned by retailers to total ordinary shareholding	Huafang and Jianguo (2007)	agency theory
Government Concentration	percentage of government ownership to total company ordinary shareholdings	Rhodes and Soobaroyen (2010); Ntim et al. (2013)	stakeholder theory,agency theory and resource dependence theory and institutional theory
Block Ownership	percentage of shares held by shareholders with at least 5% of the total company ordinary shareholdings.	Abraham and Cox (2007); Ntim et al. (2013); Saggar and Singh (2017)	Agency theory and resource dependence theory
Foreign Ownership	percentage of ordinary shares held by foreigners shareholders.	Haniffa and Cooke (2005); Muttakin and Subramaniam (2015)	Institutional theory, resource dependence theory and agency theory
Control Variables			
Industry type	dummy for each of the main industries:basic material + oil gas; consumer goods, consumer services + health care; industrials; and technology + telecoms firm	Taylor et al. (2010); Semper and Beltrán (2014); Buckby et al. (2015)	Institutional theory and legitimacy theory
Audit Quality	1, if a firm is audited by a big four audit firm	Alzead (2017); Ntim et al. (2013);Mokhtar and Mellett (2013); Sekome and Lemma (2014)	Institutional theory
Cross-listing	dummy variable if a company is listed in more than one stock exchange	Mangena and Pike (2005); Rajab and Handley-Schechter (2009);Taylor et al. (2010);Ntim et al. (2013)	Institutional theory and legitimacy theory
Corporate governance quality	corporate governance quality score	Mathuva et al. (2019);Cornelius (2005)	Stakeholder theory and agency theory
Moderating variable			
Amendement of Kenya Company Act 2015	1 when the Kenya Company Act 2015 are considered and 0 when the Kenya Company Act 2015 are not considered	Kenya Company Act 2015	Institutional theory

5.9 Chapter summary

The chapter presented the variables and formulated the testable hypothesis. Several corporate characteristics were selected, namely firm characteristics variables, board characteristics variables, ownership structures variables, control variables and moderating variables. The firm-specific factors include firm size, leverage, profitability, liquidity, firm growth, operating risks and capital expenditure. The board characteristics include board activity, board size, board diversity and board independence, while ownership structure includes managerial ownership, retail ownership, block concentration, foreign ownership and government ownership. The control variables include industry type, audit quality, cross-listing and corporate governance quality. The moderating variable for the study was the amended Kenya Companies Act of 2015. The variables under each category were selected based on the criteria enumerated in Section 5.2. The theoretical basis for each variable associated with the quality of CRD was discussed. The chapter also discussed previous empirical studies to understand the direction and magnitude of the association between the variables under investigation. The chapter concluded with the presentation of the conceptual framework depicting the relationship among the variables and the operationalisation of the variables.

CHAPTER SIX
RESEARCH METHODOLOGY

6.1 Introduction

The chapter presents a suitable research design employed to achieve the research objectives, research philosophy, target population, research validity and reliability, population and sampling design, data collection instruments (primary and secondary data) and data analysis procedures. The chapter is organised as follows: Section 6.1 presents the introduction, Section 6.2 presents the research philosophy, the ontological and the epistemological approach, and Section 6.3 presents the research design. Then, Section 6.4 presents the research strategy, Section 6.5, presents the research validity and reliability, and Section 6.6 presents the population and sample of the study. Furthermore, Section 6.7 presents data collection procedures and instruments, Section 6.8 presents data processing and analysis procedures and Section 6.9 presents the chapter summary.

6.2. Research philosophy

6.2.1 Ontological approach

Ontology relates to the nature of reality (Burrell & Morgan, 1979; Creswell, 2014). There are two main ontological assumptions, namely objectivism and subjectivism, with varying philosophical positions aligned between them (Morgan and Smircich, 1980; Creswell, 2014). On one hand, proponents of objectivism incorporate assumptions of natural science and assert that reality is a concrete structure (Morgan & Smircich, 1980; Creswell, 2014). In addition, the knowledge about reality can only be discovered through sense observation and measurement without human interference. This implies that CRD can be viewed as a world composed of a network of determinate relationships that can be observed and measured without human actors. On the other hand, proponents of subjectivism incorporate assumptions of social science and assert that reality is socially constructed (Morgan & Smircich, 1980; Creswell, 2014). Moreover, knowledge about reality is created from the perceptions and consequent actions of social actors concerned with their existence (Morgan & Smircich, 1980; Creswell, 2014). This implies that CRD can be viewed as a social reality with a web of relationships, shared beliefs, cultures and meaning that exist in the minds of the managers involved in making disclosure decisions on whether to report and how to report risk information. The present study adopted both objectivism and subjectivism assumptions but leaned more on objectivism.

6.2.2 Epistemological approach

Epistemology is concerned with the acquisition of knowledge and the relationship between the researcher and the researched. The study adopted both post-positivism and social constructivism paradigms but leaned more on post-positivism. Post-positivism represents thinking after positivists and believes that there is no absolute truth of knowledge (Phillips & Burbules, 2000). Likewise, the positivist perspective has been criticised by post-positivists on the basis that we are all biased in our observations (Creswell, 2014). The post-positivist approach relies on quantitative research methods, developing numeric measures of observations and studying the behaviour of individuals (Creswell, 2014). It also assumes some laws govern the world, and these need to be tested or verified and refined so that we can understand the world better. Thus, the researcher begins with a theory, collects data that either supports or refutes the theory, then makes necessary revisions and conducts additional tests (Creswell, 2014).

According to social constructivism, people try to comprehend the environments in which they live and work (Creswell, 2014). As a result, they create personal interpretations of their experiences concerning particular things or items (Creswell, 2014). Due to the variety and multiplicity of these meanings, the researcher decided to focus on the diversity of viewpoints rather than focusing on a select few categories or ideas (Creswell, 2014). Researchers situate themselves in the study to realize how their interpretation is shaped by their personal, cultural, and historical experiences. They also accept that their backgrounds influence their interpretation (Creswell, 2014). The social constructivism approach uses qualitative research techniques to determine a phenomenon's meaning from the perspectives of participants.

Even though the post-positivism approach has traditionally dominated CRD literature, the present study adopted both post-positivism and social constructivism because, first, the subject matter of CRD has both qualitative and quantitative characteristics. Second, it is both an observable reality (through existing corporate reports) and empirically testable reality (through relating it to hypothesis determining variables). Third, CRD is a social reality with meaning that exists in the minds of the managers involved in making decisions on whether to report and how to report. Fourth, both paradigms capture the strengths and minimise the weaknesses of each. This is consistent with the triangulation approach adopted under objectivism and subjectivism assumptions.

6.3 Research design

The study adopted descriptive and mixed methods research design, more specifically, explanatory sequential mixed methods. The descriptive design enabled the researcher to examine the status of CRD practice by listed non-financial firms in Kenya. Similarly, descriptive research design helped to document the determinants of quality of CRD by non-financial firms in Kenya. Explanatory sequential mixed methods enabled the researcher to triangulate data sources by performing both quantitative and qualitative analysis. Likewise, this approach helped to interpret the results of quantitative analysis (Creswell, 2014; Saunders et al., 2009). Moreover, mixed methods provide better (more robust) inferences and opportunities for presenting divergent views (Tashakkori & Teddlie, 2003). Furthermore, CRD is a multi-dimensional concept that cannot be captured in totality using a single approach (Mbithi et al., 2020). Thus, adopting a multi-method approach helped to explore the multi-dimensional nature of CRD within the context of listed non-financial firms in Kenya. In addition, the design is also consistent with the multi-theoretical framework proposed by the study to capture the complex nature of CRD.

6.4 Research strategy and approaches

Research strategy may be broadly classified into two broad approaches, namely deductive and inductive (Creswell, 2014; Saunders et al., 2009). On one hand, the deductive strategy entails moving from general to a specific practice, and it is aimed at developing hypotheses to test the existing theory (Creswell, 2014; Saunders et al., 2009). On the other hand, the inductive strategy involves moving from explicit to general and it aims at developing a new theory. The present study adopted a deductive strategy because its scope is not to formulate a new theory after data analysis, but rather to test specific hypotheses and theories (Philips & Burbules, 2000). Similarly, the deductive approach has firmly built-in protection against biasness (Creswell, 2014). A deductive approach is undertaken using both quantitative and qualitative research designs to describe CRD practice and corporate characteristics that explain the phenomenon among listed non-financial firms in Kenya (Creswell, 2014). The first phase involved developing two scoring systems (weighted and unweighted) from the CRD framework/guidelines and recent literature. The scoring systems were then tested to determine corporate determinants of the quality of CRD in Kenya. The second phase involved the triangulation of quantitative results with qualitative analysis. This involved seeking the views of CRD stakeholders to establish the extent to which non-financial firms in Kenya have adopted CRD, the concerns of practitioners and the wishes of users.

6.5 Research validity and reliability

To improve the research quality, validity and reliability tests were carried out (Mohajan, 2017). Such tests create transparency and reduce opportunities for researchers to insert bias (Singh, 2014). A detailed assessment of reliability and validity tests involves an appraisal of methods used to collect data (Saunders et al., 2009).

6.5.1 Research validity

Validity refers to the extent to which an instrument measures what it purports to measure (Blumberg et al., 2005). The validity of a research instrument assesses the extent to which the instrument measures what it is designed to measure (Robson, 2011). In quantitative research, validity is the extent to which any measuring instrument measures what it is intended to measure (Thatcher, 2010). However, in qualitative research, it is when a researcher uses certain procedures to check for the accuracy of the research findings (Creswell, 2014). Validity has three main components, namely construct validity, internal validity, and external validity. To achieve construct validity, the correct operational measures must be established for the concept to be studied. To increase construct validity, the study used multiple data sources (use of data from audited financial statements and views from stakeholders) and theory triangulation (use of multi-theoretical perspective).

Internal validity is concerned with the extent to which a piece of evidence supports a claim about cause and effect. To increase the internal validity of the study, the theoretical framework developed in chapter four and the empirical literature reviewed in chapter five provide explanations for causality. The other aspect of validity is external validity, which shows whether the results given by the study are transferable to other groups of interest (Last, 2000). To address threats to external validity, the study developed a CRD index borrowing from earlier researchers (Elamer et al., 2019a; Ntim et al., 2013; Salem et al., 2019; Shivaani et al., 2019) and guidelines (FRC, 2018). Furthermore, the index developed was tailored for the current study by piloting it to the practitioners for comprehensiveness.

6.5.2 Research reliability

Reliability refers to a measurement that supplies consistent results with equal values (Blumberg et al., 2005; Chakrabartty, 2013). It measures the consistency and trustworthiness of research. To address the reliability of the study, the data collection instruments were adopted from previous studies (McFie, 2006; Wangombe, 2013; Albassam, 2014; CFA

Institute, 2016; Elamer et al., 2019b) and they were tailored to reflect the current study objectives. Manual content analysis, as discussed in data analysis, was used to gather secondary data through the use of a checklist (Appendix IV). Research assistants were also trained on how to collect both primary and secondary data. Lastly, Cronbach alpha was used to test the reliability of the data collection instruments.

6.6 Population and sample

The study targeted all 51 listed non-financial companies in Kenya in the period between 2008 and 2019 (NSE, 2019). The study focussed on non-financial firms and excluded financial firms (banking and insurance). This was because financial firms are highly regulated and are subject to specific risk disclosure guidelines (Bozzolan & Miihkinen, 2019; Fukukawa & Kim, 2017; Linsley & Shrives, 2006; Ntim et al., 2013; Oliveira et al., 2018). The final sample comprised 39 non-financial firms, as outlined in Appendix IX. Moreover, to respond to the fourth and fifth empirical research questions on the perception of stakeholders, several stakeholders were targeted including preparers and users to provide a balanced view (McFie, 2006; ACCA, 2014; Albassam, 2014; CFA Institute, 2016; Wangombe, 2016). The internal stakeholders included finance managers and boards of directors while external stakeholders included regulators, academicians, shareholders, external auditors, and financial analysts.

6.7 Data collection procedure and instruments

The data used were collected from both primary and secondary sources. Secondary data were used to respond to the three empirical questions; first, *what is the quality of CRD among listed non-financial firms in Kenya?* Secondly, *is there an association between the quality of CRD and corporate characteristics among NSE listed non-financial firms in Kenya?* Thirdly, *is there a moderating effect of the Kenya Companies Act on CRD determinants among listed non-financial firms in Kenya?* Secondary data was collected from audited annual reports of the listed companies. The audited annual reports are considered an important source of company information (Gonidakis et al., 2020). The secondary data were obtained from company websites and the Capital Market Authority library. The primary data was used to respond to the fourth and fifth empirical questions: *What are the preparers' reasons for the practice of CRD,* and, *what is the perception of stakeholders on the meaning of high-quality CRD among stakeholders?* The primary data were obtained through semi-structured interviews. Two interview guides were prepared, one targeting the preparers of the annual report while the other the users of the annual report (Appendix V and VI).

6.8 Data processing and analysis

Data collected from primary and secondary data sources were cleaned, coded and edited to respond to the three empirical research questions. For the first question (W*hat is the quality of CRD among listed non-financial firms in Kenya?*), descriptive statistics (mean, range, standard deviation, maximum and minimum scores) were performed on the collected data, and manual content analysis was used to examine the quality of CRD using two scoring indices (weighted and unweighted) developed from CRD literature (Ntim et al., 2013; Elamer et al. 2019a; FRC, 2018) (Appendix IV). For the second question (*Is there an association between company characteristics and quality of CRD among listed non-financial firms in Kenya*?), bivariate and multivariate analyses were performed. The study adopted Pearson correlation to conduct bivariate analysis while multivariate analysis was conducted using panel regression techniques (Elamer et al., 2019a; Ntim et al., 2013).

Panel data regression techniques enabled the researcher to control for the potential endogeneity arising from unobserved company-specific factors. This is because firms face different opportunities and challenges over time (Larcker & Rusticus, 2010; Petersen, 2009). Thus, CRD practices could be explained by unobserved company-specific heterogeneities such as corporate culture, complexity and managerial talent (Guest, 2009). Besides, before running the panel data regression analysis, the following diagnostic checks were performed on the residuals to make sure the data supports assumptions of ordinary least square. This includes linearity test, multi-collinearity test, normality test, heteroscedasticity test, stationarity test, serial autocorrelation test and cross-sectional dependence. The p-values were used to establish significant corporate characteristics that explain and predict CRD behaviour among listed non-financial firms in Kenya. The regression equation below was used to test the association between the quality of CRD scores and corporate characteristics:

$$Y_{it} = \alpha_0 + \beta_i \sum_{i=1}^{16} CC_{it} + \sum_{i=1}^{4} \beta_i \, CONTROLS + \varepsilon_{i\varepsilon} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Equation I}$$

Where Y_{it} is CRDIW or CRDIU for the CRD quality, CC refers to 16 corporate characteristic variables, namely firm size (FS), leverage (LEV), profitability (ROE), liquidity (LIQ), firm growth (SGR), capital expenditure (CPX), operating risk (OPR), board activity (BOA), board size (BOS), board gender diversity (BGD), board independence (BND), managerial ownership (MOW), retail ownership (ROW), foreign ownership (FOW), block ownership (BLW), and government ownership (GOW). CONTROLS refer to the 4 control variables,

namely audit quality (BIG4), cross-listing (CRL), corporate governance quality (CGQ), and industry type (IND). $\varepsilon_{i\varepsilon}$ refers to the error term.

For the third question (*Is there a moderating effect of CRD determinants among listed non-financial firms in Kenya?*), the equation below was used to assess the moderating effect of the Kenya Companies Act of 2015 on CRD determinants:

$$Y_{it} = \alpha_0 + \beta_i \sum_{i=1}^{16} CC_{it} * CDG_{it} + \sum_{i=1}^{4} \beta_i \, CONTROLS_{it} + \varepsilon_{i\varepsilon} \ldots\ldots\ldots\ldots\ldots\ldots \text{Equation 2}$$

Where Y_{it} is CRDIW or CRDUW for the CRD quality, CC refers to 16 corporate characteristic variables, namely firm size (FS), leverage (LEV), profitability (ROE), liquidity (LIQ), firm growth (SGR), capital expenditure (CPX), operating risk (OPR), board activity (BOA), board size (BOS), board gender diversity (BGD), board independence (BND), managerial ownership (MOW), retail ownership (ROW), foreign ownership (FOW), block ownership (BLW), and government ownership (GOW). CDG refers to the Kenya Companies Act of 2015. CONTROLS refers to the 4 control variables, namely audit quality (BIG4), cross-listing (CRL), corporate governance quality (CGQ), and industry type (IND). $\varepsilon_{i\varepsilon}$ refers to the error term.

The quality of CRD by listed non-financial firms in Kenya was measured by developing two scoring systems: weighted (CRDIW) and unweighted (CRDUW) (Elamer et al., 2019a; Elamer et al., 2019b). Similarly, the study adopted a broader definition of CRD in line with literature to capture the multi-dimensional aspects of CRD (Beattie et al., 2004; Elzahar & Hussainey, 2012; Mokhtar & Mellet, 2013; Ntim et al., 2013; Al-Shammari, 2014; COSO, 2004). The study contributes to the literature by developing a new measure of CRD adapted to the Kenyan context based on FRC (2018), Linsley and Shrives (2006), Solomon et al. (2000), Ntim et al. (2013) and Shivaani et al. (2019). The scoring systems were constructed using 62 CRD items (Appendix IV). In constructing the indices, annual report narratives were considered CRD if they were stated explicitly rather than implicitly (Elzahar & Hussainey, 2012; Shivaani et al., 2019). After that, every disclosure is mapped to the qualitative attributes (Ntim et al., 2013; Shivaani et al., 2019).

For weighted CRD measure, each CRD item has a score of '0' to '10', whereby '0' refers to 'no risk information' and '10' refers to 'complete risk information', containing the following

five quality dimensions or properties: time-horizon (past/future), tone (negative/positive), nature (qualitative/quantitative), specificity (general/specific) and linkage (not link-related/link-related information). The weighted CRD measure resulted in a potential score of 530, scaled to a value between 0% and 100%. For the unweighted CRD measure, each item has a score of '0' to '1', whereby '0' refers to 'no risk information contained' and '1' refers to 'risk information disclosed by the company'. The unweighted measure resulted in a potential score of 62; scaled to a value between 0% and 100%. Even though the index has been criticised for being characteristically subjective (Marston & Shrives, 1991), the study followed the steps described below to minimise subjectivity.

First, two independent research assistants coded 10 annual reports individually and the results were compared (Elamer et al., 2019a). There were no significant differences that emerged. Secondly, afterwards, the main coder completed the coding of the reminder of the CRD. Thirdly, the main coder was re-coded and the results were compared with the original coding. The findings indicated no major differences with a high coefficient of 0.975. Finally, Cronbach alpha indicated 82%, which is greater than the acceptable threshold of 70% (Elamer et al., 2019a). Moreover, thematic analysis was used to answer the two empirical questions. The first was, *what are the preparer's reasons for the practice of CRD among listed non-financial firms in Kenya?* The second was, *what is the perception of the stakeholders on the meaning of CRD among listed non-financial firms in Kenya?*

6.9 Chapter summary

The chapter presented the research philosophies, research design, research strategy, and research methods. The study employed both post-positivism and social constructivism approaches but it leaned more on post-positivism. In addition, the study employed descriptive and explanatory sequential mixed methods. On one hand, the quantitative analysis targeted the non-financial firms listed in Kenya for the study period 2008-2019. On the other hand, qualitative analysis targeted relevant internal and external stakeholders. For the quantitative data, the CRD index (weighted and unweighted) was developed by borrowing from recent literature and frameworks available as attached in Appendix IV.

For qualitative data, two interview guides were designed to respond to the two research questions. The procedure for data processing and analysis was also discussed. The procedure for constructing scoring systems and the panel data regression models were provided. For weighted CRD measure, each CRD item has a score of '0' to '10', in which '0' refers to no risk information and '10' to complete risk information, containing the following quality dimensions: time (past/future), tone (negative/positive), nature (qualitative/quantitative), specificity (general/specific), and linkage (not link-related/link-related information). The weighted CRD measure resulted in a potential score of 530, scaled to a value between 0% and 100%. For unweighted CRD measure, each item has a score of '0' to '1', whereby '0' referred to no risk information contained and '1' risk information disclosed by the company. The unweighted measure resulted in a potential score of 62, scaled to a value between 0% and 100%.

CHAPTER SEVEN

QUALITY OF CRD AMONG LISTED NON-FINANCIAL FIRMS IN KENYA

7.1 Introduction

The chapter responds to the second empirical research question: What is the quality of CRD among listed non-financial companies in Kenya? The question is addressed by assessing whether there is "HQCRD" and if not, what level of quality is attained using descriptive analysis. Two scoring indices were developed to measure the quality of CRD, namely weighted and unweighted. The chapter is organised as follows: Section 7.1 is the introduction, while Section 7.2 presents sample selection, and Section 7.3 presents the results of the quality of CRD. Afterwards, Section 7.4 presents the comparison between weighted and unweighted CRD scores, whereas Section 7.5 presents descriptive statistics of independent and control variables, and Section 7.6 presents the chapter summary.

7.2 Sample representation

The study targeted all 51 non-financial firms listed on the NSE from 2008 to 2019 as shown in table 7.1. Results indicate that 6 out of the listed firms were delisted from NSE during the study period, namely Rea Vipingo in 2015, Marshall EA in 2017, Atlas in 2019, Kenol-Kobil in 2019, Baumann & Co in 2017 and Hutchings Biemer in 2017. Furthermore, 6 other companies were suspended at some point during the study period, namely Uchumi in 2017, Kenya Orchards in 2010, Eaagards in 2010, Deacon in 2018, Athi River mining in 2018 and Mumias in 2019. The annual reports were obtained from the remaining 39 listed non-financial firms. The sample generated unbalanced data sets, with 365 firm-year observations, representing 60% of the targeted population.

Table 7.1: Sample selection

Sample selection	Number of firms	Number of firm-year observations	% of the target census
Non-financial companies as at December 2019	**51**	612	100
Less: de-listed companies	**(6)**	(72)	(12)
Less: companies suspended from trading	**(6)**	(72)	(12)
Less: missing observations		(103)	(16)
Total number of companies (unbalanced)	**39**	**365**	**60**

Table 7.2 presents the sectoral distribution of listed companies in the sample. The Commercial and Services (29%) constitute the highest followed by Agriculture (16.4%), Investment (12.1)%), Manufacturing and Allied (11.8%), Energy and Petroleum (11%), and Construction and Allied (9.9%). The remaining sectors had one company in the sample, namely Telecommunication, Automobiles and Accessories, Investment Services, Exchange Traded Funds and Real Estate Investment Trust.

Table 7.2: Sector distribution

Sector Distribution	Number of firms	Number of firm-year observations	% of the target census
Agricultural sector	5	60	16.4
Automobiles and Accessories sector	1	12	3.3
Commercial and Services sector	10	106	29.0
Construction and Allied sector	4	36	9.9
Energy and Petroleum sector	4	40	11.0
Investment sector	5	44	12.1
Investment Services	1	5	1.4
Manufacturing and Allied sector	6	43	11.8
Telecommunication sector	1	11	3.0
Real Estate Investment Trust sector	1	5	1.4
Exchange Traded Funds sector	1	3	0.8
Total	**39**	**365**	**100**

7.3 Quality of CRD among listed non-financial firms in Kenya

This section evaluates the quality of CRD among listed non-financial firms in Kenya using two scoring systems, namely the weighted and unweighted CRD measures. The two indices were constructed using 62 CRD items (Appendix IV). The weighted CRD score is the main measure for the study while the unweighted CRD score is used for robustness checks.

7.3.1 Quality of CRD among non-financial firms in Kenya based on the weighted score

This section evaluates the quality of CRD in the annual reports based on the weighted CRD measure. Table 7.3 presents summary descriptive statistics of the quality of CRD by themes and at an overall level over the twelve years.

Table 7.3: Summary descriptive statistics of CRD based on the weighted score

Disclosure Category	2008/2019	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CFRD—% sub-score													
Mean	0.139	0.102	0.103	0.105	0.114	0.119	0.120	0.126	0.165	0.167	0.181	0.182	0.185
Median	0.130	0.098	0.100	0.101	0.104	0.114	0.119	0.124	0.154	0.148	0.158	0.170	0.172
St.Deviation	0.050	0.059	0.060	0.065	0.065	0.066	0.043	0.045	0.037	0.037	0.038	0.041	0.043
Minimum	0.027	0.027	0.037	0.043	0.055	0.060	0.054	0.031	0.037	0.050	0.046	0.051	0.047
Maximum	0.262	0.143	0.145	0.146	0.148	0.158	0.169	0.182	0.236	0.249	0.262	0.249	0.262
CBRD—% sub-score													
Mean	0.193	0.141	0.143	0.146	0.158	0.165	0.167	0.174	0.229	0.232	0.252	0.252	0.256
Median	0.180	0.135	0.139	0.140	0.144	0.158	0.164	0.172	0.213	0.204	0.218	0.235	0.238
St.Deviation	0.069	0.082	0.083	0.090	0.090	0.092	0.060	0.062	0.051	0.051	0.052	0.057	0.059
Minimum	0.025	0.025	0.051	0.060	0.076	0.085	0.075	0.043	0.052	0.070	0.064	0.070	0.065
Maximum	0.389	0.213	0.215	0.217	0.220	0.234	0.251	0.270	0.351	0.370	0.389	0.370	0.389
CSRD—% sub-score													
Mean	0.080	0.058	0.059	0.061	0.065	0.069	0.069	0.072	0.095	0.096	0.104	0.105	0.106
Median	0.075	0.056	0.058	0.058	0.060	0.066	0.068	0.072	0.089	0.085	0.091	0.098	0.099
St.Deviation	0.029	0.034	0.034	0.037	0.038	0.038	0.025	0.026	0.021	0.021	0.022	0.023	0.025
Minimum	0.002	0.002	0.021	0.025	0.031	0.030	0.031	0.018	0.021	0.029	0.027	0.029	0.027
Maximum	0.123	0.067	0.068	0.069	0.070	0.074	0.079	0.085	0.111	0.117	0.123	0.117	0.123
CRDI—% Total													
Mean	0.412	0.301	0.306	0.312	0.337	0.353	0.356	0.372	0.488	0.496	0.537	0.539	0.547
Median	0.385	0.289	0.297	0.299	0.307	0.338	0.351	0.368	0.455	0.437	0.467	0.503	0.509
St.Deviation	0.148	0.175	0.178	0.193	0.193	0.196	0.128	0.133	0.108	0.109	0.112	0.121	0.127
Minimum	0.054	0.054	0.110	0.128	0.162	0.175	0.159	0.091	0.110	0.149	0.137	0.150	0.138
Maximum	0.774	0.423	0.427	0.432	0.438	0.466	0.500	0.537	0.698	0.736	0.774	0.736	0.774

First, the quality of CRD among the sampled firms is low and varies throughout the study period (2008-2019) as shown in table 7.3 above. For instance, the average CRDI score of 41.2% ranges from a minimum of 5.4% to a maximum of 77.4%, with median firms disclosing 38.5%. The mean CRDI score is more than the median, suggesting the distribution is slightly skewed with some observations below the mean. Equally, the standard deviation of the distribution is 14.8%, which indicates a significant level of discretion regarding CRD in the annual reports. The low CRD score may be attributed to a deliberate attempt by managers not to disclose certain risks (Shivaani et al., 2019), or lack of expertise to identify risks resulting in non-disclosure (Tauringana & Chithambo, 2016). In addition, the low CRD score may be explained by the absence of specialised guidelines on risk in Kenya.

The findings are in line with Tauringana and Chithambo (2016) who found an average CRD score of 40% in Malawi and Lopes and Rodrigues (2007) in Portugal found a CRD score of 44%, while Ntim et al. (2013) in South Africa reported a CRD score of 42%. Similarly, Salem et al. (2019) and Shivaani et al. (2019) report weak CRD quality in Tunisia and India, respectively. However, Miihkinen (2012) in Finland found a CRD score of 81.9%. The

difference in CRD scores among researchers could be explained by the risk definition adopted, disclosure method employed and jurisdiction where the study was carried out. For instance, in Finland, Germany and South Africa, risk reporting is highly regulated, which is different from the situation in Kenya. This highlights the need to harmonise CRD practice in Kenya through detailed and specialised disclosure guidelines.

Secondly, there is an increasing trend in CRD over time from an average of 30.1% in 2008 to 54.7% in 2019. This change represents over 2000 basis points. The improvement in CRD over time demonstrates the level of importance that sampled firms ascribe to it. Thus, managers in Kenya have increasingly become conscious of CRD transparency. The findings are in line with Elamer et al. (2019a) who found a general increasing trend in CRD among banks in MENA countries. Similarly, Ntim et al. (2013) report steady growth in CRD among listed non-financial firms in South Africa. In the Indian context, Shivaani et al. (2019) found an upward trend in CRD among the listed non-financial firms.

Thirdly, a similar increasing trend was observed with CRD themes, namely financial (CFRD), business (CBRD) and strategic (CSRD). For instance, CFRD ranges from a minimum of 2.7% to a maximum of 26.2%, with a mean of 13.9%. CFRD improved progressively from 10.2% in 2008 to 18.5% in 2019, representing over 800 basis points. Equally, CBRD ranges from a minimum of 2.5% to a maximum of 38.9%, with a mean of 19.3%. CBRD improved gradually from 14.1% in 2008 to 25.6% in 2019, representing over 1000 basis points. In the same vein, CSRD ranges from a minimum of 0.2 % to a maximum of 12.3%, with a mean of 8%. CSRD improved steadily from 5.8% in 2008 to 10.6% in 2019, representing over 400 basis points.

Fourthly, category-wise, comparisons (financial and non-financial) indicate that firms in Kenya mostly disclose non-financial information. For instance, non-financial information constituted 27.3% of the aggregate CRD score while financial 13.9% constituted. The findings are consistent with Linsey and Shrives (2006) in the UK and Konishi and Ali (2007) in Japan. However, the findings are not consistent with Beretta and Bozzolan (2004) in Italy, and Ntim et al. (2013) in South Africa. Lastly, CRD not only varies across the sampled firms but also around the themes. For example, CBRD (19.3%) constitute the highest followed by CFRD (13.9%), and CSRD (8%) is the least. The findings suggest that managers have more room to decide the depth and breadth of CRD in the annual report. This managerial latitude affects the nature, extent, scope and quality of CRD.

7.3.2 Quality of CRD with and without consideration of the Companies Act 2015

To determine the CRD behaviour over the twelve years, taking into account the new regulation, Table 7.4 below provides summary descriptive statistics for CRD levels with consideration of Kenya Companies Act of 2015, and without the consideration of Kenya Companies Act of 2015.

Table 7.4: Summary descriptive statistics of CRD based on the weighted score

Disclosure Category	2008/2019	2008	Without Consideration of Companies Act of 2015	With Consideration of Companies Act of 2015	2019
CFRD—% sub-score					
Mean	0.139	0.102	0.113	0.176	0.185
Median	0.130	0.098	0.109	0.160	0.172
St.Deviation	0.05	0.059	0.058	0.039	0.043
Minimum	0.027	0.027	0.027	0.037	0.047
Maximum	0.262	0.143	0.182	0.262	0.262
CBRD—% sub-score					
Mean	0.272	0.224	0.233	0.327	0.344
Median	0.254	0.186	0.203	0.325	0.345
St.Deviation	0.08	0.08	0.081	0.079	0.078
Minimum	0.072	0.072	0.072	0.074	0.015
Maximum	0.417	0.254	0.254	0.417	0.417
CSRD—% sub-score					
Mean	0.080	0.058	0.065	0.101	0.106
Median	0.075	0.056	0.063	0.092	0.099
St.Deviation	0.029	0.034	0.033	0.022	0.025
Minimum	0.002	0.002	0.002	0.021	0.027
Maximum	0.123	0.067	0.085	0.123	0.123
CRDI—% Total					
Mean	0.412	0.301	0.334	0.521	0.547
Median	0.385	0.289	0.321	0.474	0.509
St.Deviation	0.148	0.175	0.171	0.115	0.127
Minimum	0.054	0.054	0.054	0.110	0.138
Maximum	0.774	0.423	0.537	0.774	0.774

The findings in Table 7.4 show that CRD quality improved gradually from 2008 to 2019. In addition, the findings show that CRD quality improved after the Companies Act was enacted (2015/2019). For instance, the average CRD score for 2008/2014 was 33.4%, while for 2015/2019 it was 52.1%. The improvement in CRD depicts the response by listed firms in enhancing transparency, especially after such disclosure was made compulsory in Kenya. The findings align with Elamer et al. (2019a) who found that banks increased CRD after Basel II made such disclosure mandatory. This is consistent with Miihkinen (2012) who reports that the Finnish standard had a significant effect on CRD. Similarly, Aljifri (2008) found that corporate disclosure in UAE is driven by the regulators. In the same vein, Roulstone (1999)

reports that FRR No. 48 had a significant effect on market risks in the US. In addition, Oliveira et al. (2011a) report that the adoption of IAS/IFRS had a significant effect on CRD practice in Portugal. However, based on the weighted CRD measure, none of the companies investigated achieved "HQCRD" during the study period. Thus, stakeholders seeking "high-quality risk disclosure" will not find annual reports sufficient to address their needs. Further analysis is presented based on the unweighted CRD measure in Table 7.5 below and a comparison of two scoring systems is made in Section 7.4.

7.3.3 Quality of CRD among non-financial firms in Kenya using unweighted score

This section evaluates the quality of CRD in the annual reports based on unweighted CRD measure. Table 7.5 presents summary descriptive statistics of the quality of CRD by themes and at an overall level over the twelve years.

Table 7.5: Summary descriptive statistics of CRD based on the unweighted score

Disclosure Category	2008/2019	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CFRD—% sub-score													
Mean	0.196	0.162	0.165	0.170	0.169	0.168	0.171	0.172	0.220	0.233	0.239	0.242	0.245
Median	0.183	0.135	0.142	0.159	0.149	0.152	0.155	0.150	0.214	0.215	0.235	0.245	0.250
St.Deviation	0.058	0.058	0.060	0.061	0.061	0.060	0.057	0.054	0.057	0.059	0.054	0.058	0.057
Minimum	0.040	0.040	0.089	0.085	0.085	0.089	0.079	0.111	0.112	0.083	0.093	0.083	0.083
Maximum	0.302	0.184	0.197	0.203	0.209	0.222	0.234	0.240	0.276	0.296	0.302	0.296	0.302
CBRD—% sub-score													
Mean	0.272	0.224	0.228	0.230	0.235	0.232	0.236	0.243	0.303	0.322	0.330	0.337	0.344
Median	0.254	0.186	0.192	0.213	0.205	0.210	0.212	0.201	0.294	0.330	0.324	0.334	0.345
St.Deviation	0.080	0.080	0.083	0.084	0.084	0.083	0.079	0.075	0.079	0.081	0.075	0.080	0.078
Minimum	0.072	0.072	0.111	0.131	0.131	0.111	0.167	0.063	0.074	0.083	0.095	0.083	0.075
Maximum	0.417	0.254	0.272	0.280	0.289	0.306	0.323	0.332	0.381	0.408	0.417	0.408	0.417
CSRD—% sub-score													
Mean	0.114	0.094	0.095	0.096	0.099	0.097	0.099	0.101	0.127	0.134	0.138	0.144	0.144
Median	0.107	0.080	0.082	0.092	0.086	0.088	0.090	0.087	0.127	0.126	0.139	0.142	0.145
St.Deviation	0.033	0.036	0.034	0.035	0.038	0.034	0.035	0.033	0.032	0.030	0.031	0.028	0.030
Minimum	0.050	0.050	0.050	0.051	0.051	0.050	0.058	0.014	0.053	0.059	0.062	0.055	0.065
Maximum	0.174	0.106	0.114	0.117	0.121	0.128	0.135	0.139	0.159	0.170	0.174	0.170	0.174
CRDI—% Total													
Mean	0.582	0.480	0.489	0.490	0.499	0.498	0.506	0.520	0.650	0.689	0.707	0.721	0.736
Median	0.544	0.400	0.420	0.470	0.440	0.450	0.460	0.445	0.633	0.643	0.702	0.725	0.740
St.Deviation	0.171	0.172	0.177	0.179	0.180	0.178	0.169	0.160	0.168	0.173	0.160	0.172	0.167
Minimum	0.162	0.162	0.250	0.267	0.267	0.250	0.304	0.188	0.239	0.225	0.250	0.221	0.223
Maximum	0.893	0.544	0.582	0.600	0.619	0.656	0.693	0.711	0.817	0.874	0.893	0.874	0.893

First, there is a high degree of variation in the quality of CRD consistent with the weighted measure as shown in Table 7.5. For instance, the average CRDI score of 58.2% ranges from a minimum of 16.2% to a maximum of 89.3%, with median firms disclosing 54.4.%. Equally, the mean CRDI score is more than the median, indicating the distribution is slightly skewed

with some observations below the mean. The standard deviation of the distribution is 17.1%, indicating a significant level of discretion regarding CRD in the annual reports. Secondly, CRD improved steadily over the period 2008 to 2019. For example, the average company disclosed 48% in 2008 to 73.6% in 2019. This change represents over 2000 basis points. Thirdly, a similar trend was observed with CRD themes. For instance, CFRD ranges from a minimum of 4% to a maximum of 30.2%, with a mean of 19.6%. CFRD improved over time from 16.2% in 2008 to 24.5% in 2019, representing over 800 basis points. Likewise, CBRD ranges from a minimum of 7% to a maximum of 41.7%, with a mean of 27.2%. CBRD improved from 22.4% in 2008 to 34.4% in 2019, representing over 1000 basis points. In addition, CSRD ranges from a minimum of 5% to a maximum of 17.4%. CSRD improved from 11.4% in 2008 to 14.4% in 2019, representing 300 basis points. Fourthly, comparing CRD levels between thematic categories established that the two scoring systems were consistent.

7.3.4 Quality of CRD with and without consideration of the Companies Act 2015

Table 7.6 provides summary descriptive statistics for disclosure levels, with consideration of the Kenya Companies Act of 2015 and without the consideration of the Kenya Companies Act of 2015.

Table 7.6: Summary descriptive statistics of CRD based on the unweighted score

Disclosure Category	2008/2019	2008	Without Consideration of Companies Act of 2015	With Consideration of Companies Act of 2015	2019
CFRD—% sub-score					
Mean	0.196	0.162	0.168	0.236	0.245
Median	0.183	0.135	0.149	0.232	0.250
St.Deviation	0.058	0.058	0.059	0.057	0.057
Minimum	0.040	0.040	0.040	0.083	0.083
Maximum	0.302	0.184	0.240	0.302	0.302
CBRD—% sub-score					
Mean	0.193	0.141	0.156	0.244	0.256
Median	0.18	0.135	0.150	0.222	0.238
St.Deviation	0.069	0.082	0.080	0.054	0.059
Minimum	0.025	0.025	0.025	0.065	0.065
Maximum	0.389	0.213	0.270	0.389	0.389
CSRD—% sub-score					
Mean	0.114	0.094	0.097	0.102	0.144
Median	0.107	0.08	0.086	0.093	0.145
St.Deviation	0.033	0.036	0.035	0.034	0.030
Minimum	0.050	0.050	0.014	0.053	0.045
Maximum	0.174	0.106	0.139	0.174	0.174
CRDI—% Total					
Mean	0.582	0.480	0.497	0.522	0.736
Median	0.544	0.400	0.441	0.474	0.740
St. Deviation	0.171	0.172	0.174	0.173	0.167
Minimum	0.162	0.25	0.162	0.221	0.143
Maximum	0.893	0.544	0.711	0.893	0.893

The findings in Table 7.6 above revealed increased CRD quality from 2008 to 2019, consistent with the weighted measure. In addition, the findings show that CRD quality improved after the Companies Act was enacted (2015/2019). For instance, the average overall score for 2008-2014 was 49.7% while for 2015/2019 it was 52.5%. The findings are consistent with Elamer et al. (2019a) who found that banks increased CRD after the implementation of Basel II in MENA countries. Similarly, Miihkinen (2012) and Miihkinen (2013) report that the Finnish risk disclosure guideline had a significant effect on the quality of CRD among listed firms in Helsinki.

Likewise, Aljifri (2008) found that corporate disclosure is regulator driven in the United Arab Emirates. In the US, Roulstone (1999) reports that FRR No. 48 had a significant effect on market risks. In Portugal, Oliveira et al. (2011a) found that IAS/IFRS had a significant effect on CRD practice. Based on the unweighted CRD measure, none of the listed non-financial firms in Kenya achieved "HQCRD" for the period of the study. The findings of both weighted and unweighted CRD scores strengthen the need for detailed CRD guidelines. Moreover, the change in CRD score is slightly higher for the unweighted CRD score than for the weighted CRD score. Further analysis of the two scoring indices is carried out and a comparison is made in Sub-section 7.4.

7.3.5 Qualitative characteristics of CRD among non-financial firms in Kenya

To measure CRD quality, risk disclosure sentences were categorised into five qualitative dimensions or properties, namely time horizon (past versus future), tone of disclosure (negative versus positive), nature of disclosure (qualitative versus quantitative), specificity (general versus specific) and linkage (non-link-related versus link-related) and expressed as a percentage of total CRD sentences. The results of descriptive statistics for weighted CRD score expressed as a percentage of sentence count are presented in Table 7.7.

Table 7.7: Summary descriptive statistics of weighted score

Disclosure Category	2008/2019	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CFRD-% sub-score													
Past	12	11	11	11	11	11	11	11	13	13	13	13	13
Future	6	8	8	8	8	8	8	8	3	4	4	4	4
Negative	8	9	8	8	8	8	8	8	7	7	7	7	7
Positive	10	10	10	10	10	10	10	9	10	10	10	10	10
Qual.	12	11	11	11	11	11	11	11	13	13	12	12	13
Quant.	10	10	10	10	9	9	9	10	10	11	10	10	10
General	11	11	11	11	11	11	11	11	12	12	11	12	12
Entity	10	11	11	11	10	10	10	10	11	10	11	11	11
Not-Linked	11	11	11	11	11	11	11	11	12	11	11	11	10
Linked	10	10	10	10	9	10	10	10	10	10	11	11	11
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
CBRD-% sub-score													
Past	15	18	18	19	15	15	15	15	14	14	14	13	12
Future	4	3	3	3	3	3	4	4	5	5	6	6	7
Negative	7	8	8	8	7	7	7	7	6	5	5	6	7
Positive	12	13	13	12	11	11	11	10	12	12	12	12	11
Qual.	15	18	18	19	15	15	15	14	14	14	14	13	12
Quant.	4	5	5	4	3	4	3	4	4	5	4	4	5
General	15	18	18	18	15	15	15	15	15	13	13	12	12
Entity	11	13	13	13	11	10	10	10	8	9	10	10	10
Not-Linked	15	18	18	19	15	15	15	15	15	14	14	13	13
Linked	7	4	4	4	3	4	6	8	7	9	11	10	10
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
CSRD-% sub-score													
Past	14	17	17	17	14	14	14	13	14	14	13	13.	13
Future	5	5	5	5	5	5	6	7	4	4	4	4	4
Negative	6	7	7	7	6	6	6	6	6	6	7	6	6
Positive	12	15	15	15	13	12	12	12	11	10	9	9	10
Qual.	14	17	17	17	14	14	14	13	15	14	13	13	13
Quant.	5	4	4	4	3	3	2	3	7	7	6	6	6
General	14	17	17	17	15	14	13	13	14	13	13	13	12
Entity	12	15	15	14	12	12	13	13	8	9	10	11	10
Not Linked	14	17	17	17	14	14	14	13	14	13	13	12	12
Linked	8	5	4	4	4	6	7	8	9	11	11	12	12
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
CRDI-% Total													
Past	13	13	13	13	14	13	13	13	14	14.	14	13	13
Future	5	5	5	5	5	5	6	6	4	4	4	4	5
Negative	6	7	7	7	7	7	7	7	5	4	5	5	5
Positive	11	11	11	11	11	11	11	10	12	11	11	11	11
Qual.	13	13	13	14	14	13	13	13	14	14	14	13	13
Quant.	6	6	7	6	6	6	6	6	6	6	6	6	6
General	13	13	13	13	14	13	13	13	14	14	14	13	13
Entity	10	11	11	11	11	11	11	11	9	9	9	10	10
Not-Linked	13	10	14	13	14	13	13	13	14	14	14	13	14
Linked	8	9	6	6	6	7	8	9	8	10	11	10	10
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

7.3.4.1 Time horizon (past versus future-looking information)

The descriptive statistics in Table 7.7 above show that sampled firms in Kenya tended to disclose more historical than future-looking information. At the overall level, past information constitutes 13% of risk disclosures while future-oriented information is 5%. The findings are not in line with Linsey and Shrives (2006), who found, in the UK, that risk disclosures are 26% past-looking and 35% future-looking. Similarly, Marzouk (2016) found that risk disclosures are 71.29% future-looking and 36.74% past-looking in Egypt. However, several studies revealed that firms provide past-looking information (Beretta & Bozzolan, 2004; Kongprajya, 2010; Oliveira et al., 2011). In Italy, Guthrie et al. (2020) confirm that integrated report disclosures are backwards-looking. This is consistent with the fact that annual reports are historical (Leopizzi et al., 2019). In addition, Aljifri and Hussainey (2007) state that firms provide less future-looking information. This is because competitors can use such information to take advantage of their opportunities and weaknesses. Moreover, Linsey and Shrives (2006) argue that firms are unwilling to provide future-looking information to save themselves in case future performance is not achieved. Regarding the behaviour of the past/future, taking into account the new regulation, there is no significant trend observed after the enactment of the Kenya Companies Act in 2015.

7.3.4.2 Tone of disclosure (positive versus negative oriented information)

The descriptive statistics in Table 7.7 above show that sampled firms in Kenya disclose more positive than negative information. At the overall level, positive information constitutes 11% of risk disclosures while negative information constitutes 6%. The findings are consistent with Marzouk (2016) who found that companies in Egypt disclosed 58.13% positive and 19.39% negative information. In South Africa, Ntim et al. (2013) found that risk disclosures are 14% positive and 6% negative. Kongprajya (2010) reports that listed companies in Thailand provide more positive information. Similarly, Leopizzi et al. (2019) found that companies provide more positive than negative information in Italy. This suggests that firms continually seek to reassure investors about their outlook. According to FRC (2018), quality CRD should reflect both positive and negative aspects of the entity's development, performance, position and prospects of the entity without bias to enable a reasoned assessment of the performance. Therefore, providing biased information may lead to boilerplate/generic disclosures which are less reliable and less useful to the stakeholders. Regarding the behaviour of positive/negative taking into account the new regulation, there is

no clear-cut trend observed before and after consideration of the Kenya Companies Act of 2015.

7.3.4.3 Nature of disclosure (qualitative versus quantitative information)

The descriptive statistics in Table 7.7 show that sampled firms in Kenya disclosed more qualitative than quantitative information. At the overall level, qualitative information constitutes 13% of risk disclosures while quantitative information constitutes 6%. The findings are not consistent with Marzouk (2016) who found that firms disclosed 78.55% quantitative and 33.68% qualitative in Egypt. However, the findings resonate with Ntim et al. (2013) who found that risk disclosures in South Africa are 38% qualitative and 3% quantitative. Similarly, Konishi and Ali (2007), Linsley and Shrives (2006) and Oliveira et al., 2011a) raise concerns about the absence of quantitative information in the annual reports. Furthermore, Amran et al. (2008) found that risk disclosures are mostly qualitative in Malaysia. According to Shivaani et al. (2019), quantitative risk disclosures enable managers to attach a monetary value to risk; this enables stakeholders to assess the potential impact of the disclosed information. Thus, disseminating quantitative information enhances investors' ability to assess the organisation's risk profile (Beretta & Bozzolan, 2004; Linsley & Shrives, 2006). Regarding the behaviour of qualitative attributes, taking into account the new regulation, there is no clear-cut trend observed before and after consideration of the Kenya Companies Act of 2015.

7.3.4.4 Specificity (general versus entity-specific information)

The descriptive statistics in Table 7.7 above show that sampled firms in Kenya disclosed slightly higher general than entity-specific information. At the overall level, general information constitutes 13% of risk disclosures while entity-specific information constitutes 10%. The findings suggest that managers tend to attribute risk to external events, leading to boilerplate disclosure, which serves no purpose to the stakeholders. This is in line with Linsey and Shrives (2006) who report that annual report disclosures in the UK mostly focus on general statements on risk and mitigation measures. Similarly, Amran et al. (2008) found that risk disclosures are mostly generic in Malaysia and Abraham and Shrives (2014) report that risk disclosures are often boilerplate, which makes it difficult for stakeholders to understand the actual risks. FRC (2018) argues that quality risk disclosure should show how a particular fact or circumstance might affect or has affected the development, performance, position or prospect of the entity and how it is responding to that fact or circumstance. In

addition, entity-specific information provides insightful information that can be used in the assessment of the entity's prospects. In addition, Solomon et al. (2000) state that generic risk disclosures are less relevant to shareholders because they are likely to remain constant over time. Furthermore, regarding the behaviour of the general/specific, taking into account the new regulation, there is no clear-cut trend observed before and after consideration of the Kenya Companies Act of 2015.

7.3.4.5 Linkage (link related versus non-link-related information)

The descriptive statistics in Table 7.7 show that sampled firms in Kenya disclose slightly less link-related information with other sections of the annual report. At the overall level, non-linked information constitutes 13% of risk disclosures while link-related information constitutes 8%. According to FRC (2018), quality risk information should show relationships or interdependencies or the causes and effects, facts and circumstances disclosed in the annual report. Disclosing information that is not linked to the other sections of the annual report leads to boilerplate disclosures, which are less useful to the stakeholders (FRC, 2018). Moreover, regarding the behaviour of link related/ non-linked, taking into account the new regulation, there is no clear-cut trend observed before and after consideration of the Kenya Companies Act of 2015.

In conclusion, risk disclosures in Kenya are mainly past, positive, qualitative, general, not link-related information. For instance, about 13% of CRD are past, qualitative, general and not link-related information; 11% are positive, 10% entity-specific, 8% linked, 6% negative and quantitative, and 5% futuristic. The findings of past-looking, positive, qualitative, general and non-linked related disclosures indicate information asymmetry and agency issues among the sampled non-financial firms in Kenya. Furthermore, disclosing past-looking, positive, qualitative, general and non-linked information is useful in enhancing corporate legitimacy and image but less useful to stakeholders when making decisions (Ntim et al., 2013). This suggests that there is an information gap between what companies are disclosing and what users want to see in the annual report (ACCA, 2014). Thus, there is need for a detailed and specialised guideline to harmonise CRD practice among listed non-financial firms in Kenya.

7.3.5 Disclosure frequency among listed non-financial firms in Kenya

This section evaluates the quality of CRD for each disclosure item based on the weighted CRD score. In total, the weighted CRD scale has 62 reporting items. Appendix X provides a summary snapshot of the disclosed risks as a percentage of firms disclosing each of the 62 items. On one hand, the findings show that sampled firms in Kenya placed more importance on social contribution, internal audit and control, reputation/goodwill, marketing/customer satisfaction and liquidity in that order. On the other hand, they placed less importance on contract duration, concentration risk, unemployment rate, counterparty risk and public debt/budget deficit in that order. The importance placed on social contribution/community support, marketing/customer satisfaction, internal audit and control, reputation/goodwill, and liquidity is consistent with Ntim et al. (2013) in the South African context. However, the results are not consistent with Shivaani et al. (2019) in India, except for the internal audit and control. The variability in disclosure levels over time implies that non-financial firms in Kenya complied with disclosure requirements at varying levels. This invites consideration to examine factors that explain CRD variability. Such consideration would help to identify the differential features of firms with higher quality to those with lower quality, and drivers that describe such behaviour.

7.4 Comparison between weighted and unweighted scores

First, the quality of CRD is low in both weighted and unweighted CRD scores in aggregate terms. However, there is a slightly higher quality reported in the unweighted (58%) than in the weighted system (41%). The maximum weighted CRD score (77%) is less than the unweighted CRD score (89%). The median score of the two distributions is less than the respective mean CRD score, indicating that there are some observations below the mean. The findings cast doubt on the state of risk management capacity and whether listed firms in Kenya have robust risk management programmes in place to identify, assess, track and mitigate risks (Moloi, 2014). Secondly, there is a high degree of variation in CRD quality over the study period. Thirdly, CRD quality improved gradually, suggesting more companies are disclosing better risk information than before.

Fourthly, there is a significant difference between the CRD scores achieved in weighted and unweighted systems, with a p-value less than 0.05 as shown in Table 7.8 on equality of means. The difference between the two scoring systems indicates that they measure different constructs of ‘HQCRD’. Though there is a slightly higher standard deviation in the

unweighted CRD score of 17.1% than the 14.8% of weighted CRD score, the dispersion is very close. The range in the unweighted system (73%) is slightly more than the weighted system (72%). Despite the significant difference between the weighted and unweighted CRD, there is a high correlation of 0.96 between the two with a p-value of 0.000 as shown in Table 8.1. Fifth, the quality of CRD varies from company to company in both scoring systems, and such variation justifies the need for a study to establish factors that explain the CRD behaviour among the sampled firms. Sixth, since the two indices capture different aspects of quality, for the study, the weighted measure was chosen as the main measure for CRD quality because it captures the latest dimensions of disclosure quality.

Table 7.8: Test for equality of means between series

Method	df	Value	Probability
t-test	816	-6.187065	0.0000
Satterthwaite-Welch t-test*	797.1045	-6.187065	0.0000
Anova F-test	(1, 816)	38.27977	0.0000
Welch F-test*	(1, 797.105)	38.27977	0.0000

7.5 Descriptive statistics of the independent and control variables

This section presents the summary descriptive statistics for all the independent and control variables among the sampled non-financial firms over the study period. Table 7.9 below presents the summary descriptive statistics for all the independent and control variables.

Table 7.9: Summary descriptive statistics of the test and control variables (N=365)

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
Independent Variable (Firm-specific variables)					
FS	15.68	16.76	24.45	5.72	2.49
LEV (%)	16.10	10.31	81.70	0.00	17.60
ROE	1.691	2.410	7.870	-0.451	6.872
LIQ	2.456	1.497	25.00	-2.697	3.017
SGR (%)	7.104	5.300	212.9	-96.90	62.04
CPX (%)	6.104	4.000	65.30	0.000	17.10
OPR (%)	4.408	3.010	188.4	-127.7	18.40
Independent Variable (Board Characteristics variables)					
BOA	5.467	4.000	39.00	3.000	3.400
BOS	7.860	8.000	16.00	3.000	2.318
BGD (%)	15.30	12.50	66.70	0.000	14.90
BND (%)	75.60	80.00	93.30	25.00	14.80
Independent Variable (Ownership Structure variables)					
MOW (%)	4.510	0.800	85.00	0.000	12.90
ROW (%)	26.00	25.50	69.20	1.500	15.30
FOW (%)	27.70	14.50	97.70	0.000	8.780
BLW (%)	68.70	72.10	95.30	19.40	13.80
GOW (%)	7.600	0.000	70.00	0.000	17.30
Control variables					
BIG4 (%)	86.30	100.0	100.0	0.000	42.60
CRL (%)	13.70	0.000	100.0	0.000	34.40
CGQ (%)	76.90	82.90	100.0	14.30	20.40
IND (%)	83.40	100.0	100.0	0.000	37.30

The following observations are made from Table 7.9. Firm size was measured in terms of the natural logarithms of total assets. Firm size ranges from a minimum of 5.72 (2.013 billion) to a maximum of 24.5(401.422 billion), with an average of 15.7 (6.032 billion) and a median of 16.7. The average firm size is comparable to that which is reported by Elamer et al. (2019a) of 15.63 in MENA countries. However, the average firm size is lower than 21.42 which is reported by Albassam (2014) among listed firms in Saudi Arabia. Leverage level was measured in terms of debt to equity ratio. Leverage level ranges from a minimum of 0% to a maximum of 81.7%, with an average of 16.10% and a median of 10.03% among the sampled firms. The leverage level is comparable to Al-Nodel and Hussainey (2010) who report 18% leverage among sampled companies in Saudi companies. However, Tauringana and Chithambo (2016) report a high leverage level of 51.94% among listed firms in Malawi.

Profitability was measured in terms of return on equity. Profitability ranges from a minimum of -0.451 to a maximum of 7.87, with an average of 1.691 and a median of 2.41 among the sampled firms. The median profitability is above the mean, indicating that a large number of observations are above the mean. The average profitability is lower than 2.041 reported by Mathuva et al. (2019) among financial and non-financial listed firms in the NSE. Liquidity,

as measured in terms of current ratio, ranges from a minimum of -2.697 to a maximum of 25.000, with an average of 2.456 and a median of 1.497. The liquidity level suggests that on average, the sampled firms can meet their short-term obligations as and when they fall due. The median of liquidity is less than the mean, indicating that a large number of observations are below the mean. The average liquidity level is lower than the average liquidity of 51.60 reported by Elamer et al. (2019) in MENA countries.

The firm's growth was measured in terms of the percentage of the current year's sales minus the previous year's sales. Firms' growth ranges from a minimum of -96.90% to a maximum of 212.9%, with an average of 7.07% and median of 5.30% among the sampled firms. The median of firm growth is less than the mean, indicating that a large number of observations are below the mean. The firm's growth is slightly higher than the findings of Ntim et al. (2013) who report an average of 4.76%. In Saudi, Albassam (2014) reported an average of 15% among the sampled firms in Saudi Arabia. Capital expenditure was measured in terms of the percentage of capital expenditure to total assets. Capital expenditure ranges from a minimum of 0% to a maximum of 65.3%, with an average of 6.10% and median of 4.0% among the sampled firms. The median of capital expenditure is less than the mean, indicating that a large number of observations are below the mean. The results are close to the findings of Ntim et al. (2013) who report an average of 8.43% among firms in South Africa. Likewise, Albassam (2014) report an average capital expenditure of 8.57%.

The operating risk was measured in terms of the standard deviation of the operating profit. Operating risk ranges from a minimum of -127.7% to a maximum of 188.4%, with an average of 4.4% and median of 3.0% among the sampled firms. The median operating risk is less than the mean, indicating that a large number of observations are below the mean. The average operating risk is lower than the 14.76% reported by Ntim et al. (2013). Board activity was measured in terms of the frequency of board meetings in a year. Board activity ranges from a minimum of 3 to a maximum of 39, with an average of 5.47 and median of 4 among the sampled firms. The results suggest that the majority of listed non-financial firms meet quarterly. The mean value is consistent with Albassam (2014) who report 5.17 meetings per year among listed firms in Saudi.

Board size was measured in terms of the number of directors on the board. Board size ranges from a minimum of 3 to a maximum of 16, with an average of 8 and median of 8 among the sampled firms. The Corporate Governance Code in Kenya has not specified the minimum

number of directors, it only states that the board should neither be too small nor large to compromise their effectiveness. The average board size among the sampled firms is comparable to Albassam (2014) who reports an average of 8.42 members. Elamer et al. (2019a) report 9.44, and Al-Nodel and Hussainey (2010) report an average of 7.9. However, Ntim and Soobaroyen (2013) and Samaha et al. (2012) report higher average board sizes of 11.31 and 10.4 members in Egypt and South Africa, respectively.

Board gender diversity was measured in terms of the percentage of women on the board. It ranges from a minimum of 0% to a maximum of 66.7%, with an average of 15.30% and median of 12.50% among the sampled firms. The median of board gender diversity is less than the mean, indicating that the number of observations are below the mean. The results suggest that the proportion of women's participation in corporate boards in Kenya was still low during the study period. The findings appear close to Bufarwa et al. (2020) who found an average of 16.3% gender diversity in the UK. Board independence was measured in terms of the percentage of non-executive directors to the total number of directors on the board. Board independence ranges from a minimum of 25% to a maximum of 93.3%, with an average of 75.6% and a median of 80% among the sampled firms. The median of board independence is more than the mean, indicating that a large number of observations are above the mean. In Saudi, the proportion of independent directors among Saudi corporate boards ranges between 100% and 0%, with an average of 67% (Albassam, 2014). Samaha et al. (2012) also report an average of 65% in Egypt.

Managerial ownership was measured in terms of the percentage of shares owned by managers to total ordinary shareholding. It ranges from a minimum of 0% to a maximum of 85%, with an average of 4.5% and median of 0.8% among the sampled firms. The low average is consistent with developed and developing countries. For instance, Samaha et al. (2012) report an average of 9% among the sampled firms in Egypt; Albassam (2014) reports slightly higher managerial ownership of 15% in Saudi, and Yermack (1996) reports an average of 9% in US firms. Retail ownership was measured in terms of shares owned by retailers to total ordinary shareholding. It ranges from a minimum of 1.5% to a maximum of 69.2%, with an average of 26% and a median of 25.5% among the sampled firms. This suggests institutional investors dominate the NSE.

Foreign ownership was measured in terms of shares owned by foreigners to total ordinary shareholding. It ranges from a minimum of 0% to a maximum of 97.7%, with an average of

27.7% and median of 14.5% among the sampled firms. The median of foreign ownership is less than the mean, indicating that a large number of observations are below the mean. Block ownership was measured in terms of the percentage of ordinary shares held by shareholders with at least 5% of the total ordinary shareholdings. It ranges from a minimum of 19.4% to a maximum of 95.3%, with an average of 68.7% and median of 72% among the sampled firms. The median of block ownership is more than the mean, indicating that a large number of observations are above the mean. This is higher than the UK, where block ownership has an average of 39.66% (Bufarwa et al., 2020). In South Africa, Ntim and Soobaroyen (2013) found an average of 53.14%.

Government ownership was measured in terms of shares owned by the government to total ordinary shareholding. It ranges from a minimum of 0% to a maximum of 70%, with an average of 7.6% and median of 0% among the sampled firms. This is consistent with Ntim et al. (2013) who found an average of 8.49% in South Africa. Similarly, Ntim and Soobaroyen (2013) report 7.94% in the same jurisdiction. However, government ownership in Saudi is higher with an average of 42% among sampled firms (Albassam, 2014).

Regarding the control variables, 13.7% of the sampled firms are listed in more than one stock exchange. The average cross-listing is less than 39.4% reported for listed firms in the JSE (Ntim et al., 2013). In addition, 76.90% of the sampled firms have adopted the governance mechanisms included in appendix VII, the corporate governance score is higher than 56.7% reported for financial and non-financial firms listed in the NSE (Mathuva et al., 2019). Moreover, 83.4% of the sampled firms are listed in the following main industries (basic material, oil gas, consumer goods, consumer services, health care, industrials and technology, telecoms firms), whilst 86.3% are being audited by a big four audit firm. This is comparable to 86.7% reported for listed firms in South Africa (Ntim et al., 2013).

7.6 Chapter summary

The chapter assessed and described the status of risk disclosure in Kenya among the listed non-financial firms. The sample generated unbalanced data sets, with 365 firm-year observations, which comprise 60% of the target population. The study developed two scoring indices, namely weighted and unweighted to measure the quality of CRD. The findings indicate that CRD has not achieved high quality in Kenya. In addition, the quality of CRD is low and highly dispersed among the sampled firms based on the two scoring systems. Moreover, CRD in Kenya is mainly past, positive, qualitative, general and does not link related information. For instance, about 13% of CRD are past, qualitative, general and not link-related information, 11% positive, 10% entity-specific, 8% linked, 6% negative and quantitative, and 5% futuristic. The findings of past-looking, positive, qualitative, general and non-linked related information indicate high levels of information asymmetry and corporate legitimacy among the sampled firms. This suggests that stakeholders seeking high-quality CRD will not find the annual reports useful. The findings cast doubt on the state of risk management capacity and whether listed firms in Kenya have robust risk management programmes in place.

Furthermore, the findings show that listed firms placed greater importance on social contribution/community support, internal audit and control, reputation/goodwill/image/brand, marketing/customer satisfaction, and liquidity, in that order. However, listed firms placed the least importance on contract duration, concentration risk, unemployment rate, counterparty risk, and public debt/budget deficit in that order. In addition, the quality of CRD is low in both weighted and unweighted CRD scores. However, there is a slightly higher quality reported in the unweighted than in the weighted system. This indicates that the two scoring systems measure different constructs of "HQCRD". Notwithstanding the differences, there is a high correlation of 0.96 between the scoring systems. Lastly, the chapter presented descriptive statistics of independent and control variables among the sampled firms.

CHAPTER EIGHT

BIVARIATE AND MULTIVARIATE ANALYSIS

8.1 Introduction

The chapter responds to the third and fourth empirical research questions: Is there a significant association between the quality of CRD and corporate characteristics? Is there a significant moderating effect of the Kenya Companies Act of 2015 on the relationship between corporate characteristics and the quality of CRD? The two research questions were addressed by conducting bivariate and multivariate analyses to establish factors that determine CRD behaviour and the applicability of a multi-theoretical framework to explain CRD among listed non-financial firms in Kenya. The chapter is organised as follows: Section 8.1 presents the introduction; Section 8.2 presents the bivariate analysis, and Section 8.3 presents the summary bivariate and comparison, while Section 8.4 presents the multivariate analysis. Furthermore, Section 8.5 presents the results of weighted CRD and corporate characteristics, while Section 8.6 presents the results of unweighted CRD and corporate characteristics, and Section 8.7 presents summary results and interpretation. In addition, Section 8.8 presents the moderating effect of the Kenya Companies Act of 2015 on weighted CRD and corporate characteristics; Section 8.9 presents the moderating effect of the Kenya Companies Act of 2015 on unweighted CRD and corporate characteristics, while Section 8.10 presents model robustness and endogeneity, and Section 8.11 presents the chapter summary.

8.2 Bivariate analysis

To respond to the second empirical question, as hypothesised from theoretical models, and extant literature, both bivariate and multivariate statistical analyses were performed. This section presents the results of bivariate analysis, and the next section presents multivariate analysis. The Pearson correlation coefficient was used to establish the strength of the relationship between the quality of CRD and corporate characteristics. Pearson correlation was considered appropriate because the data met the assumptions of parametric tests. Table 8.1 below presents the test of significance between weighted and unweighted scores and the corporate characteristics.

Table 8.1: Summary results of Pearson's correlation (N=365)

Variables	CRDIW	CRDIU	FS	LEV	ROE	LIQ	SGR	CPX	OPR	BOA	BOS	BGD	BND	MOW	ROW	FOW	BLW	GOW	BIG4	CRL	CGQ	IND
CRDIW	1.000																					
CRDIU	0.962	1.000																				
	0.000	-----																				
FS	0.446	0.394	1.000																			
	0.000	0.000	-----																			
LEV	0.090	0.091	0.289	1.000																		
	0.084	0.081	0.000	-----																		
ROE	-0.044	-0.052	0.085	-0.002	1.000																	
	0.402	0.321	0.105	0.970	-----																	
LIQ	-0.137	-0.090	-0.267	-0.323	0.022	1.000																
	0.009	0.086	0.000	0.000	0.674	-----																
SGR	-0.059	-0.092	0.145	-0.093	0.046	0.098	1.000															
	0.260	0.077	0.005	0.075	0.381	0.060	-----															
CPX	0.168	0.115	0.429	0.126	0.155	-0.080	0.137	1.000														
	0.001	0.027	0.000	0.016	0.003	0.127	0.009	-----														
OPR	-0.095	-0.124	0.001	-0.089	0.258	0.096	0.097	-0.035	1.000													
	0.069	0.018	0.992	0.089	0.000	0.067	0.065	0.501	-----													
BOA	0.203	0.176	0.328	0.300	-0.020	-0.163	-0.006	0.266	-0.071	1.000												
	0.000	0.001	0.000	0.000	0.699	0.002	0.912	0.000	0.173	-----												
BOS	0.246	0.225	0.595	0.082	0.078	-0.250	0.072	0.331	0.012	0.180	1.000											
	0.000	0.000	0.000	0.117	0.138	0.000	0.172	0.000	0.816	0.001	-----											
BGD	0.385	0.383	0.154	0.058	-0.117	-0.213	-0.118	0.091	-0.108	0.104	0.177	1.000										
	0.000	0.000	0.003	0.266	0.025	0.000	0.025	0.082	0.039	0.046	0.001	-----										
BND	0.104	0.085	0.404	0.078	0.114	-0.127	0.059	0.134	0.081	0.195	0.486	0.192	1.000									
	0.038	0.090	0.000	0.137	0.998	0.015	0.260	0.010	0.124	0.000	0.000	0.000	-----									
MOW	0.084	0.049	0.028	0.005	0.007	0.116	0.126	0.098	-0.008	-0.037	-0.081	0.020	-0.097	1.000								
	0.107	0.354	0.596	0.921	0.899	0.027	0.016	0.060	0.876	0.480	0.123	0.704	0.063	-----								
ROW	-0.204	-0.205	-0.265	-0.223	0.007	0.319	-0.006	-0.263	0.024	-0.193	-0.092	-0.134	0.122	0.095	1.000							
	0.000	0.000	0.000	0.000	0.886	0.000	0.911	0.000	0.644	0.000	0.079	0.011	0.020	0.068	-----							
FOW	-0.074	-0.030	-0.043	-0.242	0.060	-0.012	0.023	-0.132	0.031	-0.200	-0.003	0.090	-0.129	-0.167	-0.257	1.000						
	0.160	0.564	0.411	0.000	0.253	0.821	0.997	0.011	0.560	0.000	0.948	0.085	0.014	0.001	0.000	-----						
BLW	-0.013	0.026	-0.219	-0.176	-0.095	-0.012	-0.016	-0.001	-0.013	-0.121	-0.211	0.089	-0.260	-0.092	-0.450	0.262	1.000					
	0.811	0.623	0.000	0.001	0.069	0.818	0.755	0.987	0.811	0.021	0.000	0.089	0.000	0.077	0.000	0.000	-----					
GOW	0.217	0.200	0.581	0.326	0.024	-0.195	0.046	0.386	0.007	0.575	0.374	0.181	0.271	-0.139	-0.384	-0.145	0.014	1.000				
	0.000	0.000	0.000	0.000	0.653	0.000	0.376	0.000	0.896	0.000	0.000	0.001	0.000	0.008	0.000	0.005	0.790	-----				
BIG4	0.100	0.068	0.188	-0.145	0.037	-0.009	0.194	0.164	-0.001	-0.076	0.243	-0.214	0.005	-0.141	-0.170	0.215	0.103	-0.226	1.000			
	0.055	0.192	0.000	0.006	0.478	0.871	0.000	0.002	0.980	0.147	0.000	0.000	0.927	0.007	0.001	0.000	0.050	0.000	-----			
CRL	0.120	0.102	0.416	0.139	0.108	-0.010	0.119	0.243	0.041	-0.051	0.544	0.026	0.236	0.124	0.103	-0.210	-0.473	0.002	0.123	1.000		
	0.021	0.052	0.000	0.008	0.038	0.854	0.023	0.000	0.439	0.334	0.000	0.617	0.000	0.018	0.049	0.000	0.000	0.966	0.018	-----		
CGQ	0.252	0.217	0.506	0.094	-0.010	-0.372	0.042	0.289	0.017	0.227	0.695	0.299	0.611	-0.049	-0.217	0.023	0.004	0.303	0.275	0.201	1.000	
	0.000	0.000	0.000	0.073	0.847	0.000	0.428	0.000	0.747	0.000	0.000	0.000	0.000	0.346	0.000	0.656	0.944	0.000	0.000	0.000	-----	
IND	0.153	0.177	0.079	-0.248	0.107	-0.096	-0.054	0.028	0.003	0.013	0.121	0.117	-0.100	-0.251	-0.356	0.278	0.257	0.170	0.038	-0.033	-0.011	1.000
	0.003	0.001	0.130	0.000	0.040	0.068	0.301	0.589	0.955	0.568	0.021	0.025	0.055	0.000	0.000	0.000	0.000	0.001	0.470	0.533	0.841	-----

8.2.1 Firm size

Hypothesis 1 (H1) predicted that there is a positive significant association between firm size and the quality of CRD. The correlation coefficient of firm size was 0.446 and 0.394 for weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between firm size and quality of CRD with p-values of less than 0.01 in both scoring systems. The correlation between firm size and CRD is positive in all cases. Thus, hypothesis 1 (HI), which states that the quality of CRD is positively associated with the firm size, is supported. This implies that at least large non-financial firms in Kenya tend to disclose quality risk information more than small non-financial firms.

8.2.2 Leverage

Hypothesis 2 (H2) predicted that there is a positive significant association between leverage and the quality of CRD. The correlation coefficient of leverage was 0.090 and 0.091 for weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between leverage and quality of CRD with p-values of less than 0.1 in both scoring systems. The correlation is positive in both cases. Therefore, hypothesis 2 (H2), which states that the quality of CRD is positively associated with leverage, is supported. This implies that, at least in Kenya, non-financial firms with high leverage exhibit quality risk disclosure more than the ones with low leverage.

8.2.3 Profitability

Hypothesis 3 (H3) predicted that there is a positive significant association between profitability and the quality of CRD. The correlation coefficient of profitability was -0.044 and -0.052 for weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is no significant association between profitability and quality of CRD with p-values of more than 0.1 in both scoring systems. The correlation is also negative in both cases. Therefore, hypothesis 3 (H3), which states that the quality of CRD is associated with profitability level, is not supported. This implies that, at least in Kenya, non-financial firms with high profitability will not necessarily exhibit quality risk information more than the ones with low profitability.

8.2.4 Liquidity

Hypothesis 4 (H4) predicted that there is a positive significant association between liquidity and the quality of CRD. The correlation coefficient of liquidity was -0.137 and -0.090 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between liquidity and quality of CRD with p-values of less than 0.01 and 0.1 in weighted and unweighted systems, respectively. The correlation is also negative in both cases. Therefore, hypothesis 4 (H4), which states that the quality of CRD is associated with liquidity level, is supported. This implies that, at least in Kenya, non-financial firms with low liquidity exhibit quality risk disclosure more than the ones with high liquidity.

8.2.5 Firm growth

Hypothesis 5 (H5) predicted that there is a positive significant association between a firm's growth and the quality of CRD. The correlation coefficient of firm growth was -0.059 and -0.092 in both weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is no significant association between firms' growth and quality of CRD at 90% confidence intervals under the weighted measure. However, there is a significant association between firms' growth and the quality of CRD at a 90% confidence level under the unweighted measure. The correlation is also negative in both cases. Therefore, hypothesis 4 (H4), which states that the quality of CRD is associated with firm growth level, is supported. This implies that, at least in Kenya, non-financial firms with high growth rates will not necessarily exhibit quality risk disclosure than the ones with low growth rates.

8.2.6 Capital expenditure

Hypothesis 6 (H6) predicted that there is a positive significant association between capital expenditure and the quality of CRD. The correlation coefficient of capital expenditure was 0.168 and 0.115 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between capital expenditure and quality of CRD with a p-value of less than 0.01 and 0.05 based on weighted and unweighted measures respectively. The correlation between capital expenditure and the quality of CRD is positive in all cases. This confirms hypothesis 6 (H6), which states that firms with high capital spending are more likely to provide higher quality risk disclosures than those with low. This implies that non-financial firms in Kenya with high capital expenditure exhibit high-quality risk disclosures than the ones with low capital expenditure.

8.2.7 Operating risk

Hypothesis 7 (H7) predicted that there is a positive significant association between operating risk and the quality of CRD. The correlation coefficient of operating profit was -0.095 and -0.124 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between operating risk and quality of CRD with p-values of less than 0.1 and 0.05 in the weighted and unweighted scoring system respectively. In addition, the correlation between operating risk and CRD is negative in all cases. Therefore, hypothesis 7 (H7), which states that operating risk influences quality risk disclosures, is supported. This implies that non-financial firms in Kenya with less operating risk exhibit quality risk disclosures than the ones with high operating risk.

8.2.8 Board activity

Hypothesis 8 (H8) predicted that there is a positive significant association between board activity and the quality of CRD. The correlation coefficient of board activity was 0.203 and 0.176 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between board activity and quality of CRD with a p-value of less than 0.01 in both scoring systems. The correlation between board activity and CRD is positive in all cases. Therefore, hypothesis 8 (H8), which states that firms with active boards are more likely to provide high-quality risk disclosure, is accepted. This implies that non-financial firms in Kenya with more active boards exhibit high-quality risk disclosure.

8.2.9 Board size

Hypothesis 9 (H9) predicted that there is a positive significant association between board size and the quality of CRD. The correlation coefficient of board size was 0.246 and 0.225 in weighted and unweighted CRD respectively as shown in Table 8.1 earlier. The results indicate that there is a significant association between board size and quality of CRD with a p-value of less than 0.01 in both scoring systems. The correlation between board size and CRD is positive in all cases. Therefore, hypothesis 9 (H9), which states that firms with large boards are more likely to provide high-quality risk disclosure, is accepted. This implies that non-financial firms in Kenya with large boards exhibit higher quality risk disclosure than the ones with smaller boards.

8.2.10 Board gender diversity

Hypothesis 10 (H10) predicted that there is a positive significant association between board gender diversity and the quality of CRD. The correlation coefficient of board gender diversity was 0.385 and 0.383 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is a significant association between board gender diversity and quality of CRD with a p-value of less than 0.01 in both scoring systems. The correlation between board gender diversity and CRD is positive in all cases. Thus, hypothesis 10 (H10), which states that firms with diverse boards are more likely to provide high-quality risk disclosures, is supported. This implies that non-financial firms in Kenya with diverse boards exhibit high-quality risk disclosure.

8.2.11 Board independence

Hypothesis 11 (H11) predicted that there is a positive significant association between board independence and the quality of CRD. The correlation coefficient of board independence was 0.067 and 0.037 in weighted and unweighted CRD respectively as shown in Table 8.1 above. The results indicate that there is no significant association between board independence and the quality of CRD at 0.1 level in both scoring systems. In addition, the correlation between board independence and CRD is positive in all cases. Thus, hypothesis 11 (H11), which states that the quality of CRD tends to be high for independent boards, is not supported. This implies that, at least in Kenya, the quality of CRD is not necessarily associated with board independence among non-financial firms.

8.2.12 Managerial ownership

Hypothesis 12 (H12) predicted that there is a positive significant association between managerial ownership and the quality of CRD. The coefficient correlation of managerial ownership was 0.084 and 0.049 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is no significant association between managerial ownership and quality of CRD with a p-value of more than 0.1 in both scoring systems. The correlation between managerial ownership and CRD is positive in all cases. Thus, hypothesis 12 (H12), which states that the quality of CRD tends to be influenced by managerial ownership, is not supported. This implies that non-financial firms in Kenya with managerial ownership do not necessarily exhibit high-quality risk disclosure.

8.2.13 Retail ownership

Hypothesis 13 (H13) predicted that there is a negative significant association between retail ownership and the quality of CRD. The correlation coefficient of retail ownership was -0.204 and -0.205 in weighted and unweighted CRD respectively as shown in Table 8.1 before. The results indicate that there is a significant association between retail ownership and quality of CRD with a p-value of less than 0.05 in both weighted and unweighted respectively. The correlation between retail ownership and CRD is negative in all cases. Thus, hypothesis 13 (H13), stating that the quality of CRD tends to be influenced by retail ownership, is accepted. This implies that the quality of CRD is negatively associated with retail ownership in Kenya.

8.2.14 Foreign ownership

Hypothesis 14 (H14) predicted that there is a positive significant association between foreign ownership and the quality of CRD. The correlation coefficient of foreign ownership was -0.074 and -0.030 in weighted and unweighted CRD respectively as shown in Table 8.1. The results indicate that there is no significant association between foreign ownership and quality of CRD with a p-value of more than 0.1 in both scoring systems. The correlation between foreign ownership and CRD is negative in all cases. Thus, hypothesis 14 (H14), which states that the quality of CRD is influenced by foreign ownership, is not supported. This implies that non-financial firms in Kenya with foreign ownership do not necessarily exhibit high-quality risk disclosure.

8.2.15 Block ownership

Hypothesis 15 (H15) predicted that there is a negative significant association between block ownership and the quality of CRD. The correlation coefficient of block ownership was -0.013 and 0.026 in weighted and unweighted CRD respectively as shown in Table 8.1 earlier. The results indicate that there is no significant association between block ownership and quality of CRD with a p-value of more than 0.1 in both scoring systems. The correlation between block ownership and quality of CRD is negative in the weighted measure while for the unweighted it is positive. Thus, hypothesis 15 (H15), stating that the quality of CRD tends to be influenced by block ownership, is not supported. This implies that non-financial firms in Kenya with block ownership do not necessarily exhibit high-quality risk disclosure.

8.2.16 Government ownership

Hypothesis 16 (H16) predicted that there is a positive significant association between government ownership and the quality of CRD. The correlation coefficient of government ownership was 0.217 and 0.200 in weighted and unweighted CRD respectively as shown in Table 8.1 above. The results indicate that there is a significant association between government ownership and quality of CRD with a p-value of less than 0.01 in both scoring systems. The correlation between government ownership and CRD is positive in all cases. Thus, hypothesis 16 (H16), stating that the quality of CRD tends to be influenced by government ownership, is accepted. This implies that non-financial firms in Kenya with government ownership exhibit high-quality risk disclosure.

8.2.17 Control variables and quality of CRD

The study included several control variables to reduce potential endogeneity that may arise through omitted variables (Albassam, 2014; Elamer et al., 2019a; Elamer et al., 2019b; Ntim et al., 2013). The following control variables were included in the study: audit quality, cross-listing, corporate governance quality and industry type. The correlation coefficient of audit quality was 0.100 and 0.068 in weighted and unweighted CRD respectively. The results indicate that there is a significant association between audit quality and the quality of CRD at 0.05 based on the weighted measure. However, based on the unweighted measure, the association is insignificant. Thus, the hypothesis that the quality of CRD tends to be influenced by audit quality is supported based on the weighted measure. This implies that non-financial firms in Kenya audited by the big four firms exhibit high-quality risk disclosure.

The correlation coefficient of cross-listing was 0.120 and 0.102 in weighted and unweighted CRD respectively. The results indicate that there is a significant association between cross-listing and the quality of CRD at 5% and 10% levels in weighted and unweighted systems, respectively. The correlation between cross-listing and CRD is positive in all cases. Thus, the hypothesis that the quality of CRD tends to be influenced by cross-listing is accepted. This implies that cross-listed non-financial firms in Kenya exhibit high-quality risk disclosures. The correlation coefficient of corporate governance quality was 0.252 and 0.217 in weighted and unweighted CRD respectively. The results indicate that there is a significant association between corporate governance quality and quality of CRD with a p-value of less than 0.01 in both scoring systems. The correlation between corporate governance quality and CRD is positive in all cases. Thus, the hypothesis that the quality of CRD tends to be influenced by corporate governance quality is accepted. This implies that firms with good governance practices in Kenya exhibit high-quality risk disclosure.

The correlation coefficient of industry type was 0.153 and 0.177 in weighted and unweighted CRD respectively. The results indicate that there is a significant association between industry type and quality of CRD with a p-value of less than 0.01 in both scoring systems. The correlation between industry type and CRD is positive in all cases. Thus, the hypothesis that the quality of CRD is influenced by industry type is accepted. This implies that the quality of risk disclosure is influenced by the industry type in Kenya.

8.3 Summary bivariate analysis

This section presents the bivariate analysis showing the significance of the corporate characteristics variables. The summary of the bivariate analysis is presented in Table 8.2 below.

Table 8.2: Summary of bivariate analysis

Independent Variables	Hypotheses Testing	Expected sign	Significance	Acceptance/Rejection of sign
Firm-specific factors				
Firm size	1	+	**supported**	**supported**
Leverage	2	+	**supported**	**supported**
Profitability	3	+	not supported	not supported
Liquidity	4	+	**supported**	not supported
Firm growth	5	+	**supported**	not supported
Capital Expenditure	6	+	**supported**	**supported**
Operating Risk	7	+	**supported**	not supported
Board characteristics				
Board Activity	8	+	**supported**	**supported**
Board Size	9	+	**supported**	**supported**
Board Gender Diversity	10	+	**supported**	**supported**
Board Independence	11	+	not supported	**supported**
Ownership structure				
Managerial Ownership	12	+	not supported	**supported**
Retail Ownership	13	-	**supported**	**supported**
Foreign Ownership	14	+	not supported	not supported
Block Ownership	15	-	not supported	**supported**
Government Ownership	16	+	**supported**	**supported**
Control variables				
Audit Quality		+	**supported**	**supported**
Cross-listing		+	**supported**	**supported**
Corporate Governance Quality		+	**supported**	**supported**
Industry Type		+	**supported**	**supported**

The findings indicate that there are 11 independent variables whose hypotheses have been supported by bivariate analysis as shown in Table 8.2. These variables include firm size, leverage, liquidity, firm growth, capital expenditure, operating risk, board activity, board size, board gender diversity, retail ownership and government ownership. Similarly, all the control variables, namely audit quality, cross-listing, corporate governance quality and industry type were significant in explaining the quality of CRD. The study found that there are 5 independent variables whose hypotheses have not been accepted by bivariate analysis. These variables include profitability, board independence, managerial ownership, foreign ownership, and block ownership.

8.4 Multivariate analysis

Multivariate analysis was performed using the multiple regression method. Panel regression analysis is considered superior to bivariate analysis (Tabachnick & Fidell, 2013). However, the choice of regression model depends on the nature of the data (Cooke, 1998). The panel data regression technique is appropriate if the data meets the classical linear regression assumptions consistent with CRD studies (Gujarati & Porter, 2010). Several diagnostic checks were conducted to develop the best model, namely normality, linearity, multi-collinearity, serial correlation, heteroscedasticity, stationarity and cross-sectional dependence. The results of the diagnostic tests are presented in the next section.

8.4.1 Normality test

Normality tests were conducted on the dependent variable using descriptive statistics (skewness, kurtosis), computerised statistical methods (Jarque-Bera) and graphical methods (histogram). However, graphical testing is not sufficient enough to provide evidence about normality (Matore & Khairani, 2020). Figures 8.1 and 8.2 present summary results of normality tests for the dependent variable. According to the findings, the skewness of weighted and unweighted CRD scores were 0.1426 and -0.0306 respectively. This indicates weighted CRD measure is slightly skewed to the right, while the unweighted CRD score is skewed to the left. The kurtosis for weighted CRD score is 2.68 while the one for unweighted CRD score is 2.53.

Statistically, data is considered to be normally distributed if the skewness value is ±1.96 and the kurtosis value is within ± 3, indicating no violation of normality in the two distributions (Haniffa & Hudaib, 2006). Similarly, Talib (2013), Peat and Barton (2005) and Gujarati and Porter (2010) consider data to be normally distributed if the skewness value is ±3 and the kurtosis value is ±3. Equally, Jarque-Bera statistics indicate the p-value is more than 0.05, confirming that the two distributions are relatively normally distributed. Furthermore, histograms revealed that the dependent variable is near normal distribution. According to Gujarati and Porter (2010), it is difficult for data to be perfectly normally distributed. Furthermore, Wooldridge (2015) argues that normality plays no role in the unbiasedness of OLS under Gauss-Markov assumptions. Thus, the normality of OLS estimators is approximately true in large samples (where N is more than 30) even without normality of errors (Wooldridge, 2015).

Figure 8.1: Normality test: weighted score

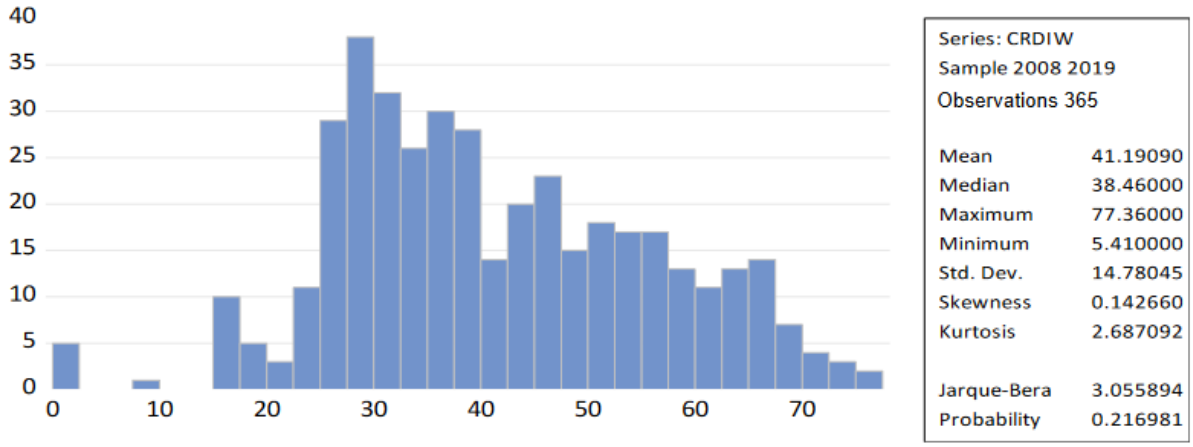
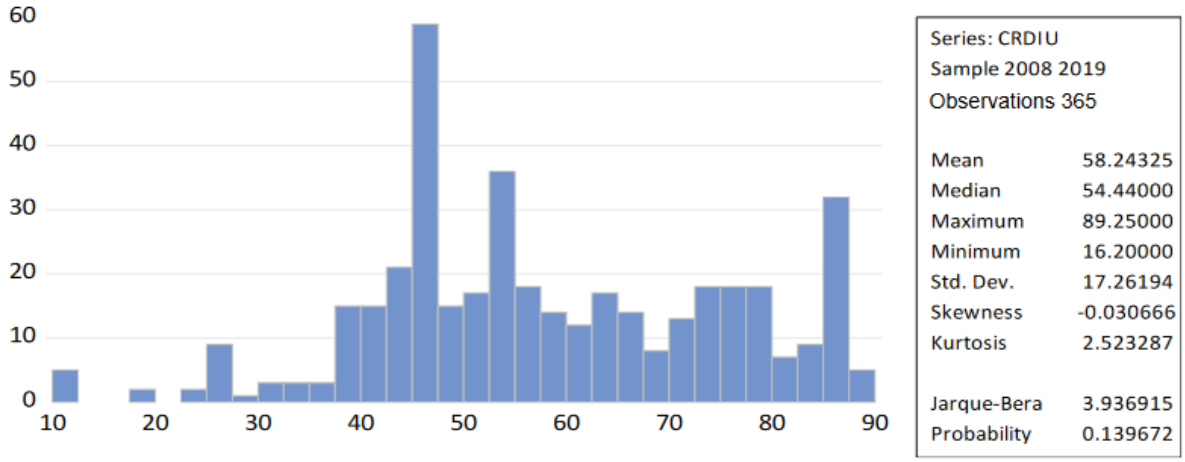


Figure 8.2: Normality test: unweighted score



8.4.2 Linearity test

The classical regression model requires the relationship between dependent and independent variables to be linearly distributed (Gujarati & Porter, 2010). Linearity tests were conducted using the Ramsey reset test. Tables 6.13 and 6.14 present summary linearity tests for the dependent and independent variables. According to the findings, t-statistics, F-statistics and likelihood ratio for CRDIW have a p-value of 0.438, 0.438, and 0.423 respectively, indicating no violation of linearity between dependent and independent variables. Statistically, variables are linearly distributed if the p-value is more than 0.05 (Gujarati & Porter, 2010). Similarly, the results of CRDIW are consistent with CRDIU as shown in tables 8.3 and 8.4. Therefore, there is no violation of the linearity assumption in both weighted and unweighted CRD scores.

Table 8.3: Ramsey reset test: weighted score

	Value	df	Probability
t-statistic	0.775978	335	0.4383
F-statistic	0.602142	(1, 335)	0.4383
Likelihood ratio	0.641110	1	0.4233

Table 8.4: Ramsey reset test: unweighted score

	Value	df	Probability
t-statistic	1.572441	335	0.1168
F-statistic	2.472571	(1, 335)	0.1168
Likelihood ratio	2.625272	1	0.1052

8.4.3 Multicollinearity test

The classical regression model requires independent variables not to be correlated (Gujarati & Porter, 2010). High collinearity among the explanatory variables makes it difficult to obtain coefficient estimates with small standard errors (Gujarati & Porter, 2010). There are two common ways to test for multi-collinearity. The first approach involves using the Pearson correlation matrix, which approach requires that the correlation between explanatory variables should not be more than 0.8 (Gujarati & Porter, 2010). The second way involves using the variance inflation factors (VIFs). Table 8.5 presents a summary Pearson correlation matrix for checking collinearity among the explanatory variables. According to the findings, the highest and lowest correlation coefficients are 0.695 and -0.473 which are below 0.8. Furthermore, the variance inflation factors (VIFs) are computed to quantify the degree of inflation of the variance of coefficient estimate in presence of multi-collinearity among explanatory variables. According to Table 8.6, variance inflation factors are below 5, implying that multi-collinearity is not a serious problem in this case. Statistically, multi-collinearity may be a problem if the VIFs values are more than 10 (Gujarati & Porter, 2010).

Table 8.5: Correlation Matrix

Variables	FS	LEV	ROE	LIQ	SGR	CPX	OPR	BOA	BOS	BGD	BND	MOW	ROW	FOW	BLW	GOW	BIG4	CRL	CGQ	IND
FS	1.000																			
LEV	0.289	1.000																		
ROE	0.085	-0.002	1.000																	
LIQ	-0.267	-0.323	0.022	1.000																
SGR	0.145	-0.093	0.046	0.098	1.000															
CPX	0.429	0.126	0.155	-0.080	0.137	1.000														
OPR	0.001	-0.089	0.258	0.096	0.097	-0.035	1.000													
BOA	0.328	0.300	-0.020	-0.163	-0.006	0.266	-0.071	1.000												
BOS	0.595	0.082	0.078	-0.250	0.072	0.331	0.012	0.180	1.000											
BGD	0.154	0.058	-0.117	-0.213	-0.118	0.091	-0.108	0.104	0.177	1.000										
BND	0.404	0.078	0.114	-0.127	0.059	0.134	0.081	0.195	0.486	0.192	1.000									
MOW	0.028	0.005	0.007	0.116	0.126	0.098	-0.008	-0.037	-0.081	0.020	-0.097	1.000								
ROW	-0.265	-0.223	0.007	0.319	-0.006	-0.263	0.024	-0.193	-0.092	-0.134	0.122	0.095	1.000							
FOW	-0.043	-0.242	0.060	-0.012	0.023	-0.132	0.031	-0.200	-0.003	0.090	-0.129	-0.167	-0.257	1.000						
BLW	-0.219	-0.176	-0.095	-0.012	-0.016	-0.001	-0.013	-0.121	-0.211	0.089	-0.260	-0.092	-0.450	0.262	1.000					
GOW	0.581	0.326	0.024	-0.195	0.046	0.386	0.007	0.575	0.374	0.181	0.271	-0.139	-0.384	-0.145	0.014	1.000				
BIG4	0.188	-0.145	0.037	-0.009	0.194	0.164	-0.001	-0.076	0.243	-0.214	0.005	-0.141	-0.170	0.215	0.103	-0.226	1.000			
CRL	0.416	0.139	0.108	-0.010	0.119	0.243	0.041	-0.051	0.544	0.026	0.236	0.124	0.103	-0.210	-0.473	0.002	0.123	1.000		
CGQ	0.506	0.094	-0.010	-0.372	0.042	0.289	0.017	0.227	0.695	0.299	0.611	-0.049	-0.217	0.023	0.004	0.303	0.275	0.201	1.000	
IND	0.079	-0.248	0.107	-0.096	-0.054	0.028	0.003	0.013	0.121	0.117	-0.100	-0.251	-0.356	0.278	0.257	0.170	0.038	-0.033	-0.011	1.000

Table 8.6: Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.002055	4.17336	NA
FS	0.885206	1.102097	1.599750
LEV	0.003146	1.188388	1.178618
ROE	0.240205	1.283753	1.283740
LIQ	0.160106	1.715901	1.156394
SGR	0.000126	1.079024	1.078859
CPX	0.006185	2.584018	1.359742
OPR	0.000342	1.114566	1.114163
BOA	0.043606	1.210750	1.210485
BOS	0.023505	1.655434	1.653756
BGD	0.003058	1.131352	1.126324
BND	0.004194	1.486884	1.485993
MOW	0.771807	1.257548	1.256480
ROW	0.040407	1.322354	1.321932
FOW	0.020207	1.068992	1.068858
BLW	0.054107	1.360939	1.360199
GOW	0.049106	1.376972	1.376970
BIG4	0.001164	1.391896	1.389930
CRL	0.000205	1.590520	1.356885
CGQ	0.006030	1.728580	1.724602
IND	0.002900	1.300658	1.299433

8.4.4 Serial correlation test

The classical ordinary least square regression requires errors not to be correlated with each other (Gujarati & Porter, 2010). This implies that the error term of observations should not be influenced by the error term relating to other observations. The presence of autocorrelation

was diagnosed using the Breusch-Godfrey Serial Correlation LM Test. Tables 8.7 and 8.8 present summary results of the Breusch-Godfrey Serial Correlation LM Test for weighted and unweighted CRD respectively. According to the finding, F-statistics and Obs*R-squared reported have p-values of more than 0.05, indicating no autocorrelation in both scoring systems. Furthermore, Durbin Watson was also checked after running the panel data regression models. The findings indicate that Durbin Watson statistics were close to 2 in both weighted and unweighted CRD scores. Statistically, Durbin Watson should be non-zero ranging from 0 to 4 where the value 2 implies that there is no serious threat posed by autocorrelation in both scoring systems.

Table 8.7: Serial correlation test: weighted score

Breusch-Godfrey Serial Correlation LM Test

F-statistic	1.178778	Prob. F(2,331)	0.3089
Obs*R-squared	2.503543	Prob. Chi-Square(2)	0.2860

Table 8.8: Serial correlation test: unweighted score

Breusch-Godfrey Serial Correlation LM Test

F-statistic	1.269798	Prob. F(2,334)	0.2822
Obs*R-squared	2.693994	Prob. Chi-Square(2)	0.2600

8.4.5 Heteroscedasticity test

In the linear regression model, it is assumed that the variance of error terms should be constant and independent of each other (Gujarati & Porter, 2010). When heteroscedasticity is present, standard errors of estimates will be biased and robust standard errors should be computed to ensure valid statistical inference. The presence of heteroscedasticity was tested using Breusch-Godfrey Test for weighted and unweighted CRD. Tables 8.9 and 8.10 present summary Breusch-Godfrey Serial Correlation LM Test for both scoring systems. According to the findings, F-statistics, Scaled explained SS and Obs*R-squared reported p-values of less than 0.05 in both scoring systems, indicating a violation of the homoscedasticity assumption. There are two common approaches in time series and cross-sectional data to deal with heteroscedasticity, namely Parks' Feasible Generalized Least Squares (FGLS) and Panel Corrected Standard Error' (PCSE) estimation (Reed & Ye, 2011). FGLS is applicable when

the number of periods (T) is greater or equal to the number of cross-sections (N) while PCSE is appropriate when the number of cross-sections is greater than the number of periods (Reed & Ye, 2011). FGLS estimator underestimates standard errors in finite samples because the error variance-covariance matrix is unknown, and substituting estimates for the element of the population variance-covariance matrix impairs the performance of FGLS (Reed & Ye, 2011). In the current study, N is greater than T; thus, PCSE is considered the appropriate estimator to deal with heteroscedasticity. Besides, PCSE provides the best coefficient estimates and reliable hypotheses testing than Parks FGLS.

Table 8.9: Heteroscedasticity test: weighted score

Breusch-Pagan-Godfrey

Null hypothesis: Homoscedasticity

F-statistic	2.072389	Prob. F(20,333)	0.0048
Obs*R-squared	39.18441	Prob. Chi-Square(20)	0.0063
Scaled explained SS	174.9618	Prob. Chi-Square(20)	0.0000

Table 8.10: Heteroscedasticity test: unweighted score

Breusch-Pagan-Godfrey

Null hypothesis: Homoscedasticity

F-statistic	2.583041	Prob. F(20,336)	0.0003
Obs*R-squared	47.57488	Prob. Chi-Square(20)	0.0005
Scaled explained SS	199.9653	Prob. Chi-Square(20)	0.0000

8.4.6 Cross-sectional dependence

Time-series and cross-sectional data may be subject to pervasive cross-sectional dependence. This arises when all units in the same cross-sections are correlated (Driscoll & Kraay, 1998), and it is normally attributed to the effect of some unobserved factors common to all units and affecting them in different ways (Driscoll & Kraay, 1998). There are several ways of testing cross-sectional dependence of error term, namely Breusch-Pagan LM, Pesaran scaled LM, Bias-corrected scaled LM and Pesaran CD as indicated in Tables 8.11 and 8.12. The panel structure of the data in this study is Large N and small T (that is, a large number of cross-sectional units and a smaller period). Pesaran CD is considered. In both scoring systems, the

p-value of Pesaran CD is less than 0.05, indicating the presence of cross-sectional dependence in the panel. PCSE estimator deals with both heteroscedasticity and cross-sectional dependence in panel data (Reed & Ye, 2011).

Table 8.11: Cross-section dependence test: weighted

Null hypothesis: No cross-section dependence (correlation) in residuals

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	2169.330	528	0.0000
Pesaran scaled LM	50.50844		0.0000
Bias-corrected scaled LM	48.85844		0.0000
Pesaran CD	21.67944		0.0000

Table 8.12: Cross-section dependence test: unweighted

Null hypothesis: No cross-section dependence (correlation) in residuals

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	1879.725	528	0.0000
Pesaran scaled LM	41.59646		0.0000
Bias-corrected scaled LM	39.94646		0.0000
Pesaran CD	27.30866		0.0000

8.4.7 Stationarity test

The panel data regression models rely on the stochastic process being stationary since its non-stationarity can produce invalid estimates (Gujarati & Porter, 2010). Panel unit root tests were conducted to determine whether the variables were stationary or otherwise. The tests for stationarity were done to avoid spurious results in the presence of unit root for non-stationary data. The results of Pesaran and Shin panel unit root test dependent, independent and control variables indicated that the three variables, namely managerial ownership, block ownership and government ownership, were non-stationary, which necessitated first differencing to cure the stationarity problem as shown in Appendix VIII.

8.4.8 Selection of panel data estimation model

Unlike the normal regression model, panel data regression must go through the estimation modelling steps to select the appropriate model between pooled, fixed and random. The first test involves conducting a Chow test, to determine the most appropriate model between pooled effect and fixed effect in estimating panel data. The null hypothesis states that pooled effect is appropriate when the p-value is more than 0.05, and the alternate hypothesis is appropriate when the p-value is less than 0.05. The summary results of the chow test are presented in Tables 8.13 and 8.14 below, and the findings indicate that the p-value for Cross-section F and Cross-section Chi-square was less than 0.05, indicating that the fixed effect model was preferred over pooled effect model in both cases.

Table 8.13: Redundant fixed effects tests: weighted score

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	8.368082	(32,284)	0.0000
Cross-section Chi-square	223.826202	32	0.0000

Table 8.14: Redundant fixed effects tests: unweighted score

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	8.770413	(32,284)	0.0000
Cross-section Chi-square	231.599041	32	0.0000

The second test involves conducting the Lagrange multiplier test (LM), to determine whether the random effect model is better than pooled effect method used. The null hypothesis states that pooled effect is appropriate when the p-value is more than 0.05, and the alternate hypothesis is appropriate when the p-value is less than 0.05. The summary results of the Lagrange multiplier test are presented in Table 8.15 and Table 8.16 for weighted and unweighted scores, respectively. The findings indicate p-value of Breusch-Pagan, Honda, King-Wu, standardized Honda, Standardized King-Wu and Gourieroux et al. were less than

0.05, indicating that the random effect model was preferred over pooled effect model as shown in Table 8.15 and Table 8.16.

Table 8.15: Lagrange multiplier tests for random effects: weighted score

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	101.6787	791.7895	893.4682
	(0.0000)	(0.0000)	(0.0000)
Honda	10.08359	28.13875	27.02728
	(0.0000)	(0.0000)	(0.0000)
King-Wu	10.08359	28.13875	29.44887
	(0.0000)	(0.0000)	(0.0000)
Standardized Honda	13.76036	29.44810	26.63395
	(0.0000)	(0.0000)	(0.0000)
Standardized King-Wu	13.76036	29.44810	28.48528
	(0.0000)	(0.0000)	(0.0000)
Gourieroux et al.	--	--	893.4682
			(0.0000)

Table 8.16: Lagrange multiplier tests for random effects: unweighted score

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	86.86854	1056.725	1143.594
	(0.0000)	(0.0000)	(0.0000)
Honda	9.320329	32.50731	29.57661
	(0.0000)	(0.0000)	(0.0000)
King-Wu	9.320329	32.50731	32.87122
	(0.0000)	(0.0000)	(0.0000)
Standardized Honda	12.83593	33.98795	29.53275
	(0.0000)	(0.0000)	(0.0000)
Standardized King-Wu	12.83593	33.98795	32.21864
	(0.0000)	(0.0000)	(0.0000)
Gourieroux et al.	--	--	1143.594
			(0.0000)

The third test entails conducting the Hausman test, to determine whether the random effect model is better than the fixed-effect method. The null hypothesis states that the random effect is appropriate when the p-value is more than 0.05, and the alternate hypothesis is appropriate when the p-value is less than 0.05. The summary results of the Hausman test are presented in Tables 8.17 and 8.18 in both scoring systems. The findings indicate that the p-value for the cross-section random effect was less than 0.05, indicating that the fixed effect is preferred

over the random effect model. Therefore, the fixed effect estimation model was used to perform the multivariate analysis in both scoring systems.

Table 8.17: Hausman test: weighted score

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	69.760637	20	0.0000

Table 8.18: Hausman test: unweighted score

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	82.900757	20	0.0000

8.5 The association between weighted scores and corporate characteristics

To establish the significant determinants of CRD quality, multiple ordinary least squares regression was performed on the unbalanced panel data. The multiple regression approach adopted is consistent with Elamer et al. (2019a), Elamer et al. (2019b), Linsley and Shrives (2006) and Ntim et al. (2013). More specifically, a fixed-effect model was used to test the association between the quality of CRD scores and corporate characteristics in both scoring systems based on the results of the Hausman test. To control for cross-sectional dependence and homoscedasticity, robust standard errors were used (Panel Corrected Standard errors). The constructed weighted CRD index (CRDIW) is the dependent variable and proxy for CRD practices among non-financial firms in Kenya. The independent variables consist of 16 corporate characteristics categorised as firm-specific, board characteristics and ownership structure. The firm-specific variables include firm size, leverage, profitability, liquidity, firm growth, capital expenditure and operating risk. Board characteristics variables include board activity, board size, board gender diversity, and board independence. Ownership structure includes managerial ownership, retail ownership, foreign ownership, block ownership and government ownership. The control variables include audit quality, cross-listing, corporate

governance quality and industry type. The multiple regression model used to assess the association between CRD scores and corporate characteristics is:

$$Y_{it} = \alpha_0 + \beta_i \sum_{i=1}^{16} CC_{it} + \sum_{i=1}^{4} \beta_i \, CONTROLS + \varepsilon_{i\varepsilon} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Equation I}$$

Where Y_{it} is CRDIW for the CRD quality; CC refers to 16 corporate characteristic variables, namely firm size (FS), leverage (LEV), profitability (ROE), liquidity (LIQ), firm growth (SGR), capital expenditure (CPX), operating risk (OPR), board activity (BOA), board size (BOS), board gender diversity (BGD), board independence (BND), managerial ownership (MOW), retail ownership (ROW), foreign ownership (FOW), block ownership (BLW), and government ownership (GOW). CONTROLS refer to the 4 control variables, namely audit quality (BIG4), cross-listing (CRL), corporate governance quality (CGQ) and industry type (IND). Lastly, $\varepsilon_{i\varepsilon}$ refers to the error term. Table 8.19 presents the relationship between corporate characteristics and the quality of CRD based on weighted CRD scores.

Table 8.19: the association between CRDIW and corporate characteristics

Variable	Coefficient	t-Statistic	Prob.
C	-11.093	-2.559	0.011
FS	0.523	2.893	**0.004**
LEV	0.032	2.302	**0.022**
ROE	-0.097	-0.287	0.774
LIQ	0.043	0.006	0.996
SGR	2.179	2.266	**0.024**
OPR	1.313	3.394	**0.001**
CPX	-1.928	-0.633	0.527
BOA	1.334	2.053	**0.041**
BOS	1.022	0.731	0.466
BGD	-2.676	-0.842	0.400
BND	0.041	1.673	**0.091**
MOW	-0.017	-0.019	0.985
ROW	0.013	0.233	0.816
FOW	0.023	2.274	**0.024**
BLW	-0.092	-3.177	**0.002**
GOW	-0.176	-0.943	0.346
BIG4	1.006	0.589	0.556
CGQ	2.440	1.707	**0.089**
CRL	0.261	0.175	0.861
IND	1.222	0.924	0.357
No. of obs.	334		
R-squared	0.438		
Adj. R-squared	0.334		
F-statistic	4.184		
Prob(F-statistic)	0.000		
Durbin-Watson	2.051		

8.5.1 Significance of the independent variables and model based on the weighted score

The regression coefficients were used to indicate the contribution of each independent variable to the quality of CRD. The t-score significance indicates the significance of each variable in the determination of the quality of CRD. The findings in Table 8.19 indicate that there are 8 out of 16 independent variables whose hypotheses are accepted by multivariate analysis at 1%, 5% and 10% significance levels. These variables include firm size, leverage, firm growth, operating risk, board activity, board independence, foreign ownership, and block ownership. However, the control variables were not significant at 10% except the corporate governance quality at 0.1 significance level.

The model F-test significance score was significant at 1% level (0.000), indicating that the model was a good fit for the variables tested, and coefficients of the 16 corporate characteristics are jointly not equal to zero. The model R squared of 43.8% indicates the model explains 43.8% variation in the quality of CRD. Similarly, the adjusted R squared of 33.4% indicates that 33.4% of the population variance would have been explained by the model had the sample been randomly selected from the whole population. The model does not explain a significant portion of the variation in the quality of CRD based on weighted measurement.

Thus, there are other variables explaining variation in CRD that are not captured by the model. The findings of the model are comparable with those of Elzahar and Hussainey (2012) who report an R-squared of 26.1% in the UK, Buckby et al. (2015) who reported 26.5% in Australia, Elamer et al. (2019a) who reported 34.6% in the MENA countries, and Bufarwa et al. (2020) who report R-squared of 13% in the UK. However, Tauringana and Chithambo (2016) report a high R squared of 84.7% in Malawi. Table 8.20 presents the summary results of hypotheses testing.

Table 8.20: Summary bivariate and multivariate results (weighted score)

Dependent Variable: Corporate Risk Disclosure Quality (CRDIW)						
Independent Variables	**Hypothesis**	**Expected sign**	**Significance**		**Acceptance/Rejection of sign**	
			Univariate	**Multivariate**	**Univariate**	**Multivariate**
Firm-specific factors						
Firm size	1	+	**supported**	**supported**	**supported**	**supported**
Leverage	2	+	**supported**	**supported**	**supported**	**supported**
Profitability	3	+	not supported	not supported	not supported	
Liquidity	4	+	**supported**	not supported	not supported	**supported**
Firm growth	5	+	**supported**	**supported**	not supported	**supported**
Capital Expenditure	6	+	**supported**	not supported	**supported**	**supported**
Operating Risk	7	+	**supported**	**supported**	not supported	not supported
Board characteristics						
Board Activity	8	+	**supported**	**supported**	**supported**	**supported**
Board Size	9	+	**supported**	not supported	**supported**	**supported**
Board Gender Diversity	10	+	**supported**	not supported	**supported**	not supported
Board Independence	11	+	not supported	**supported**	**supported**	**supported**
Ownership structure						
Managerial Ownership	12	+	not supported	not supported	**supported**	not supported
Retail Ownership	13	-	**supported**	not supported	**supported**	not supported
Foreign Ownership	14	+	not supported	**supported**	not supported	**supported**
Block Ownership	15	-	not supported	**supported**	**supported**	**supported**
Government Ownership	16	+	**supported**	not supported	**supported**	not supported
Control variables						
Audit Quality		+	**supported**	not supported	**supported**	**supported**
Cross-listing		+	**supported**	not supported	**supported**	**supported**
Corporate Governance Quality		+	**supported**	**supported**	**supported**	**supported**
Industry Type		+	**supported**	not supported	**supported**	**supported**

8.5.2 Hypothesis 1: Firm size and CRD

Hypothesis 1 (H1) predicted that there is a positive significant association between firm size and the quality of CRD. Table 8.20 above shows that the coefficient of firm size was 0.523 with a t-statistic of 2.893 and a p-value of 0.004. The results indicate that there is a significant association between firm size and the quality of CRD among non-financial firms in Kenya at 1% level. This means that a unit increase in firm size results in an increase in the quality of CRD by 0.523 units. The hypothesis that firm size positively influences CRD quality is accepted by both bivariate and multivariate analyses. Thus, large non-financial firms in Kenya tend to provide quality risk information more than small non-financial firms. The findings are in line with agency theory, resource dependence theory, stakeholder theory, legitimacy theory and signalling theory. For instance, in line with agency theory, larger

companies tend to mitigate agency costs and information asymmetry by providing more risk and risk-related disclosures (Jensen & Meckling, 1976; Watts & Zimmerman, 1983).

Likewise, resource dependence theory opines that larger firms resort to capital markets for financing their business, and the quality of information disclosed is critical (Pfeffer & Salancik, 1978). Furthermore, legitimacy theory suggests that large companies are publicly visible and they provide more risk and risk-related information to maintain the image or gain legitimacy from the society in which they operate (Ntim et al., 2013). Similarly, stakeholder theory suggests that large firms are visible to a wide range of stakeholders, who have high expectations about the company such as quality risk disclosure (Mbithi et al., 2020).

In addition, signalling theory asserts that big firms have large analyst following; thus, they resort to risk disclosure to manage them (Elshandidy & Neri, 2015). Therefore, firm size represents a multi-theoretical perspective consisting of agency theory, signalling theory, resource dependence theory, legitimacy theory and stakeholder theory in explaining CRD behaviour in Kenya. The findings support empirical literature that suggests that large firms disclose high-quality CRD than small firms (Madrigal et al., 2015; Elshandidy & Shrives, 2016; Sekome & Lemma, 2014; Elshandidy & Neri, 2015; Saggar & Singh, 2017). Contrary to the previous literature showing a positive association, Domínguez and Gámez (2014) found a negative association in Spain. In addition, Mokhtar and Mellett (2013) and Rajab and Handley-Schachler (2009) found no association in Egypt and UK firms respectively.

8.5.3 Hypothesis 2: Leverage and CRD

Hypothesis 2 (H2) predicted that there is a positive significant association between leverage and the quality of CRD. Table 8.20 shows that the coefficient of leverage is 0.032 with a t-statistic of 2.302 and a p-value of 0.022. The results indicate that there is a significant association at 5% level between leverage and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in gearing level results in an increase in the quality of CRD by 0.032 units. The hypothesis that leverage positively influences CRD quality is accepted by multivariate analysis, suggesting that an increase in leverage is associated with an increase in the quality of CRD. The findings are consistent with agency theory, which states that high-levered firms have more incentives to provide CRD than low-levered firms to mitigate information asymmetry. Likewise, the findings support the signalling theory that levered firms disclose better CRD than less levered firms to meet the needs of debtholders

(Elshandidy et al.,2013). Therefore, leverage represents both agency theory and signalling theory in explaining CRD behaviour among non-financial firms in Kenya.

Empirically, the findings are consistent with previous studies. For instance, Taylor et al. (2010) found a positive association between leverage and CRD in Australia. Similarly, Buckby et al. (2015) found a positive association between leverage and CRD in the same jurisdiction. In addition, Tauringana and Chithambo (2016) and Mbithi et al. (2022a) found a positive association among listed companies in Malawi and Kenya respectively. Nonetheless, Abraham and Cox (2007) and Elzahar and Hussainey (2012) found no association among firms in the UK. Moreover, the findings contradict those of Ntim et al. (2013) who found a negative association in South Africa.

8.5.4 Hypothesis 3: Profitability and CRD

Hypothesis 3 (H3) predicted that there is a positive significant association between profitability and the quality of CRD. Table 8.20 shows that the coefficient of profitability was -0.097 with a t-statistic of -0.287 and a p-value of 0.774. The results indicate that there is no association between profitability and the quality of CRD among non-financial firms in Kenya at 10% level. Therefore, hypothesis 3 (H3), stating that the quality of CRD is positively associated with profitability, is not supported by both bivariate and multivariate analyses. This implies that well-performing firms, in terms of profitability, will not necessarily exhibit high-quality risk disclosure in Kenya. The findings are not consistent with agency theory, signalling theory, stakeholder theory and legitimacy theory. For instance, agency theory suggests that well-performing firms are exposed to a high degree of risk, and they, therefore, use risk and risk-related disclosures to minimise agency costs (Elshandidy et al., 2011). Stakeholder theory suggests that profitable firms are visible to a wide range of stakeholders, and they hence use CRD to justify how the returns were obtained (Inchausti, 1997).

Furthermore, signalling theory suggests that profitable firms provide better risk disclosure to distinguish themselves from loss-making firms (Helbok & Wagner, 2003). Likewise, the findings are contrary to legitimacy theory, which holds that profitable firms disclose more risk information to legitimise their skills and obtain approval from different stakeholders (Madrigal et al., 2015). Empirically, the findings align with Elshandidy and Neri (2015) who found no association between profitability and CRD, using a sample of listed firms in the UK and Italy. Similarly, using a sample of listed non-financial firms in Spain, Domínguez and

Gámez (2014) found no association between CRD and profitability. Equally, Elzahar and Hussainey (2012) and Tauringana and Chithambo (2016) found no association in the UK and Malawi, respectively. Contrary to the findings of the above studies, Miihkinen (2012) and Saggar and Singh (2017) reported a negative association among firms in Finland and India respectively, whilst Ntim et al. (2013) found a positive association in South Africa.

8.5.5 Hypothesis 4: Liquidity and CRD

Hypothesis 4 (H4) predicted that there is a positive significant association between liquidity and the quality of CRD. Table 8.20 shows that the coefficient of liquidity was 0.043 with a t-statistic of 0.006 and a p-value of 0.996. The results indicate that there is no association at the 10% level between liquidity and the quality of CRD among non-financial firms in Kenya. Therefore, hypothesis 4 (H4), stating that the quality of CRD is associated with liquidity level, is not supported by both bivariate and multivariate analyses. This implies that liquid non-financial firms in Kenya will not necessarily exhibit high-quality risk disclosure. The results are not consistent with the signalling theory, which states that high liquid firms provide better risk information than low liquid firms. Empirically, the current study is consistent with Elzahar and Hussainey (2012) who found that liquidity does not influence CRD practice, using a sample of 72 firms in the UK. In the same vein, Mangena and Pike (2005) reported no association between liquidity and financial disclosure among 262 UK listed firms. Equally, Mokhtar and Mellett (2013), Alfraih and Almutawa (2014) and Muturi (2018) found no association between liquidity and corporate disclosures among firms in Egypt, UAE and Kenya, respectively. However, Elamer et al. (2019a) found a positive association among banks in MENA countries.

8.5.6 Hypothesis 5: Firm growth and CRD

Hypothesis 5 (H5) predicted that there is a positive significant association between a firm's growth and the quality of CRD. The coefficient of firm growth was 2.179 with a t-statistic of 2.266 and a p-value of 0.024 as shown in Table 8.20. The results indicate that there is a significant association at 5% level between firm growth and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in the firm growth results in an increase in the quality of CRD by 2.179 units. The hypothesis that firm growth positively influences CRD quality is supported by both bivariate and multivariate analyses. Empirically, the findings support agency theory (Jensen & Meckling, 1976), stakeholder theory (Friedman,1962; Freeman, 1984), signalling theory (Akerlof, 1970; Spence, 1973) and

legitimacy theory. However, the findings are contrary to Ntim et al. (2013) who found no association between firm growth and quality of CRD. Firm growth supports a multi-theoretical framework consisting of stakeholder theory, legitimacy theory, signalling theory and agency theory.

8.5.7 Hypothesis 6: Capital expenditure and CRD

Hypothesis 6 (H6) predicted that there is a positive significant association between capital expenditure and the quality of CRD. The coefficient of capital expenditure was -1.928 with a t-statistic of -0.633 and a p-value of 0.527 as shown in Table 8.20. The results indicate that there is no association at the 10% level between capital expenditure and the quality of CRD among non-financial firms in Kenya. Therefore, hypothesis 6 (H6), which states that the quality of CRD is associated with capital expenditure, is not supported by multivariate analysis. The findings contradict the agency theory perspective that claims that increased capital spending is associated with firm growth that requires more monitoring, resulting in improved disclosure. Nonetheless, the findings are consistent with Ntim et al. (2013) who found that capital expenditure is not associated with CRD in South Africa. Similarly, in the same jurisdiction, Ntim and Soobaroyen (2013) found a weak relationship between corporate disclosures and capital investment. Furthermore, Albassam (2014) reported no association between capital expenditure and voluntary corporate disclosure in Saudi Arabia.

8.5.8 Hypothesis 7: Operating risk and CRD

Hypothesis 7 (H7) predicted that there is a positive significant association between operating risk and the quality of CRD. The coefficient of operating risk was 1.313 with a t-statistic of 3.394 and a p-value of 0.001 as shown in Table 8.20 earlier. The results indicate that there is a significant association at the 1% level between operating risk and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in the operating risk results in an increase in the quality of CRD by 1.313 units. Therefore, hypothesis 7 (H7), namely that the quality of CRD is associated with operating risk, is supported by both bivariate and multivariate analyses. The findings are in line with agency theory and signalling theory. For instance, agency theory suggests that firms with high operating risk mitigate agency costs by providing high-quality CRD than firms with low operating risk. Equally, signalling theory indicates that firms disclose risk and risk-related information to minimise stakeholders' uncertainty about the firm (Elshandidy et al., 2018). Empirically, the findings are consistent with Ntim et al. (2013) who found that operating risk is positively associated

with CRD in South Africa. Furthermore, Miihkinen (2012) found that business risk significantly influences CRD in Finland, and Hassan (2009) found a significant association among listed firms in Egypt.

8.5.9 Hypothesis 8: Board activity and CRD

Hypothesis 8 (H8) predicted that there is a positive significant association between board activity and the quality of CRD. Table 8.20 shows that the coefficient of board activity was 1.334 with a t-statistic of 2.053 and a p-value of 0.041. The results indicate that there is a significant association at the 5% level between board activity and the quality of CRD among non-financial firms in Kenya. Therefore, hypothesis 8 (H8), stating that the quality of CRD is associated with board activity, is supported by multivariate analysis. The findings are consistent with agency theory and suggest that increased board activity through board meetings reduces information asymmetry between directors, and is associated with improved CRD (Domínguez & Gámez, 2014; Jensen & Meckling, 1976).

Empirically, the findings are not in tandem with previous studies, which suggest board meeting has no significant influence on CRD. For instance, Sánchez et al. (2011) and Domínguez and Gámez (2014) found no association between board meetings and CRD among Spanish listed companies. Likewise, Saggar and Singh (2017) reported no association between board meetings and CRD using a sample of 100 listed firms in India. Similary, Allini et al. (2016) found no relationship between CRD and board activity among Italian listed SOEs. Moreover, Oliveira et al. (2018) reported no relationship between board meetings and CRD in Portugal and Spain.

8.5.10 Hypothesis 9: Board size and CRD

Hypothesis 9 (H9) predicted that there is a positive significant association between board size and the quality of CRD. Table 8.20 shows that the coefficient of board size was 1.022 with t-statistics of 0.731 and a p-value of 0.466. This implies that board size had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. Thus, the hypothesis that board size positively influences CRD quality, is not supported by multivariate analysis. The findings are not in line with agency theory, resource dependence theory and stakeholder theory. For instance, agency theory suggests that a large board size increases diversity, which is associated with enhanced monitoring and improved risk disclosure (Elshandidy & Neri, 2015; Mokhtar & Mellett, 2013). Resource dependence

theory and stakeholder theory indicate that board size is associated with stakeholder representation, which increases the firm's ability to access the capital market. Easy access to capital markets facilitates securing finance and contracts (Freeman, 1984; Lajili & Zéghal, 2005). Empirically, the findings are aligned with previous studies which suggest that board size has no significant influence on CRD. For instance, Elzahar and Hussainey (2012) found no association between board size and CRD in the UK. Equally, Allini et al. (2016) found that board size has no significant influence on CRD in Italy. In the same vein, Oliveira et al. (2018) found no significant relationship between board size and CRD in Portugal and Spain. Furthermore, Muturi (2019) found no association in Kenya. Besides, Elshandidy and Neri (2015) and Mokhtar and Mellett (2013) found a positive association between board size and CRD, whilst Guest (2009) found a negative association.

8.5.11 Hypothesis 10: Board gender diversity and CRD

Hypothesis 10 (H10) predicted that there is a positive significant association between board gender diversity and the quality of CRD. Table 8.20 shows that the coefficient of board gender diversity was -2.676 with t-statistics of -0.842 and a p-value of 0.400. This implies that board gender diversity had no significant influence on the quality of CRD among listed non-financial firms in Kenya. Therefore, the hypothesis that board gender diversity influences CRD quality is not supported by multivariate analysis. The findings are not consistent with agency theory, resource dependence theory and stakeholder theory. To start with, agency theory suggests that board gender diversity enhances board monitoring through board independence and improved managerial monitoring (Mahadeo et al., 2012; Allini et al., 2016; Ntim et al., 2013).

Similarly, resource dependence theory, along the lines of gender, links the firm to the external market, which helps in raising capital (Oliveira et al., 2011; Pfeffer & Salancik, 1978). According to stakeholder theory, board gender diversity links the firm to different stakeholders, which provides growth opportunities. Empirically, the study supports the findings of Oliveira et al. (2018) who found no association between board diversity and CRD in Portugal and Spain. Other studies provide mixed findings on the effect of board diversity on CRD. For instance, Allini et al. (2016), Ntim et al. (2013) and Saggar and Singh (2017) found a positive association, whilst Allini et al. (2014) found a negative association.

8.5.12 Hypothesis 11: Board independence and CRD

Hypothesis 11 (H11) predicted that there is a positive significant association between board independence and the quality of CRD. The findings in Table 8.20 indicate that the coefficient of board independence was 0.041 with t-statistics of 1.673 and a p-value of 0.095. This implies that board independence had a significant influence on the quality of CRD among listed non-financial firms in Kenya at the 10% level. This means that a unit increase in board independence results in an increase in the quality of CRD by 0.041 units. Thus, the hypothesis that board independence influences CRD quality is accepted. The findings are supported by both bivariate and multivariate analyses. In addition, the findings are consistent with agency theory, legitimacy theory and stakeholder theory. For instance, agency theory indicates that executive directors lack the incentive to disclose information voluntarily and the presence of non-executive directors increases monitoring, board effectiveness and improved risk disclosure.

Legitimacy theory argues that the legitimacy gap may be created by the separation between ownership and control (Jensen & Meckling, 1976). Therefore, introducing non-executive directors on boards resolves the legitimacy gap and enhances legitimacy (Freeman & Reed, 1983; Ashforth et al., 2009). Equally, stakeholder theory states that board independence offers necessary checks and balances required to ensure board effectiveness in advancing the interests of all the stakeholders. Empirically, the findings are in line with previous studies which suggest that board independence has a significant influence on CRD. For instance, Tauringana and Chithambo (2016) found a positive association between board independence and CRD in Malawi. Equally, Abraham and Cox (2007), Ntim et al. (2013) and Oliveira et al. (2018) found a positive association between board independence and CRD in the UK, South Africa, and Portuguese and Spanish firms respectively. However, Elzahar and Hussainey (2012) found no association among listed firms in the UK.

8.5.13 Hypothesis 12: Managerial ownership and CRD

Hypothesis 12 (H12) predicted that there is a positive significant association between managerial ownership and the quality of CRD. The findings in Table 8.20 shows that the coefficient of managerial ownership was -0.017 with t-statistics of -0.019 and a p-value of 0.985. This implies that managerial ownership had no significant influence on the quality of CRD among listed non-financial firms in Kenya. Thus, the hypothesis stating that managerial

ownership influences CRD quality is not supported by both bivariate and multivariate analyses. The results are not consistent with agency theory; thus, managerial ownership does not enhance effective monitoring and control in Kenya. The results are, however, in line with Konishi and Ali (2007) and Kamaruzaman et al. (2019). Contrary to the previous findings, Albassam (2014) and Chakroun and Hussainey (2014) found a positive association between managerial ownership and corporate disclosure in Saudi Arabia and Tunisia respectively.

8.5.14 Hypothesis 13: Retail ownership and CRD

Hypothesis 13 (H13) predicted that there is a negative significant association between retail ownership and the quality of CRD. The findings in Table 8.20 shows that the coefficient of retail ownership was 0.013 with t-statistics of 0.233 and a p-value of 0.816. This implies that retail ownership had no significant influence on the quality of CRD among listed non-financial firms in Kenya at the 10% level. Thus, the hypothesis stating that retail ownership influences CRD quality is not supported by multivariate analysis. The findings suggest that because of their lower ownership stakes, retail investors have no incentive to monitor and influence CRD practice. This implies that retail investors have no power to influence quality of CRD among listed non-financial firms in Kenya. The results align with Konishi and Ali (2007) who reported an insignificant association between ownership patterns and risk disclosure in Japan. In addition, Huafang and Jianguo (2007) found an insignificant association between legal-person ownership and voluntary disclosure in China.

8.5.15 Hypothesis 14: Foreign ownership and CRD

Hypothesis 14 (H14) predicted that there is a positive significant association between foreign ownership and the quality of CRD. Table 8.20 indicates that the coefficient of foreign ownership was 0.023 with t-statistics of 2.274 and a p-value of 0.024 at 5% significance level. This implies that the coefficient of foreign ownership had a positive significant influence on the quality of CRD among listed non-financial firms in Kenya. This means that a unit increase in foreign ownership increases CRD quality by 0.023 units. Thus, the hypothesis that foreign ownership influences CRD quality is supported by multivariate analysis. The findings concur with agency theory, resource dependence theory and institutional theory. For example, agency theory indicates that managers mitigate the potential information asymmetry between managers and foreigners by providing more risk disclosures (Jensen & Meckling, 1976; Rhodes & Soobaroyen, 2010). Resource dependence theory suggests that companies win foreigners as powerful stakeholders to access the capital and other critical resources

(Branco & Rodrigues, 2006; Ntim et al., 2013). Institutional theory suggests that foreign ownership influence managers to imitate CRD practices of foreign companies (mimetic isomorphism). Empirically, the findings are in line with Haniffa and Cooke (2005), Muttakin and Subramaniam (2015) and Grassa et al. (2020) who reported a positive association between corporate disclosure and foreign ownership. However, Mousa and Elamir (2014) found no association. Besides, Saggar and Singh (2017) found a negative association.

8.5.16 Hypothesis 15: Block ownership and CRD

Hypothesis 15 (H15) predicted that there is a negative significant association between block ownership and the quality of CRD. The findings show that the coefficient of block ownership was -0.092 with t-statistics of -3.177 and a p-value of 0.002. This implies that block ownership has a significant influence on the quality of CRD among listed non-financial firms in Kenya at 5% level. A unit increase in block ownership results in a decrease in the quality of CRD by -0.092 units. Thus, the hypothesis stating that block ownership influences CRD quality is supported by both bivariate and multivariate analysis. The findings are consistent with agency theory and resource dependence theory.

For instance, agency theory indicates that block ownership is associated with lower agency costs and less disclosure. Similarly, resource dependence theory suggests that block holders reduce the need for corporate disclosures. Empirically, the findings are in line with Ntim et al. (2013) who found a negative association between block ownership and CRD in South Africa. However, Bufarwa et al. (2020) reported a positive association between block ownership and risk disclosure among UK listed firms, whilst Konishi and Ali (2007) found no association between ownership patterns and risk disclosure among firms in Japan.

8.5.17 Hypothesis 16: Government ownership and CRD

Hypothesis 16 (H16) predicted that there is a positive significant association between government ownership and the quality of CRD. Table 8.20 shows the coefficient of government ownership was -0.176 with t-statistics of -0.943 and a p-value of 0.346. This implies that the coefficient of government ownership had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. The hypothesis that government ownership positively influences CRD quality is not accepted by multivariate analysis. Thus, firms with government ownership in Kenya will not necessarily disclose quality risk information. This is not consistent with agency theory, resource dependence theory, stakeholder theory and institutional theory.

For instance, agency theory suggests that managers mitigate the potential information asymmetry between managers and the government by providing more risk disclosures (Jensen & Meckling, 1976; Rhodes & Soobaroyen, 2010). Similarly, resource dependence theory advocates that companies win the government as an influential stakeholder to access the capital and other critical resources (Branco & Rodrigues, 2006; Pfeffer & Salancik, 1978; Ntim et al., 2013**).** Stakeholder theory opines that companies with government ownership seek to provide risk disclosures to win government support as a critical stakeholder (Freeman, 1984; Freeman & Reed, 1983; Ntim et al., 2013). Moreover, institutional theory argues that companies provide risk information to comply with the current regulations (coercive isomorphism).

Empirically, the results are consistent with Elshandidy et al. (2018). However, Ntim et al. (2013) found a positive association between government ownership and CRD in South Africa. Similarly, Eng and Mak (2003) found that government ownership positively affects CRD. Equally, Elamer et al. (2019a) found a positive association between government ownership and CRD among banks in MENA countries. On the other hand, Dam and Scholtens (2012) and Allini et al. (2016) found a negative association.

8.5.18 Control variables

First, the findings in Table 8.20 shows that the coefficient of audit quality was 1.006 with t-statistics of 0.589 and a p-value of 0.556. This implies that audit quality had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. This is been supported by bivariate but not supported by multivariate analyses, suggesting that being audited by big auditing firms has not led to high-quality CRD. The findings are not consistent with expectations of institutional isomorphism (normative isomorphism), but they are consistent with Konishi and Ali (2007), Beretta and Bozzolan (2004) and Amran et al. (2009). However, Lajili and Zéghal (2005), Marzouk (2016) and Sekome and Lemma (2014) found a positive association.

Secondly, the findings show that the coefficient of cross-listing was 0.261 with t-statistics of 0.175 and a p-value of 0.861. This implies that the coefficient of cross-listing was not significant and that cross-listing had no influence on the quality of CRD among listed non-financial firms in Kenya. The findings are supported by bivariate analysis but rejected by multivariate analysis. This suggests that capital markets in developing countries have not demanded high-quality CRD among listed firms. In addition, cross-listing has not exerted pressure on companies to disclose high-quality CRD. The findings partly confirm the position of Elzahar and Hussainey (2012). However, Bufarwa et al. (2020) found a negative association between cross-listing and financial risk disclosure, whilst Ntim et al. (2013) found a positive association.

Thirdly, the findings show that the coefficient of corporate governance quality was 2.440 with t-statistics of 1.707 and a p-value of 0.089. This implies that the corporate governance quality had a significant influence on the quality of CRD among listed non-financial firms in Kenya. These findings are accepted by both bivariate and multivariate analyses. The findings are in line with those of Ntim et al. (2013). However, Bufarwa et al. (2020) found an insignificant association.

Lastly, the findings reveal that the coefficient of industry type was 1.222 with t-statistics of 0.924 and a p-value of 0.357. This implies that the coefficient of industry type was not significant and that industry type had no significant influence on the quality of CRD among listed non-financial firms in Kenya. Thus, the hypothesis stating that industry type influences

CRD quality is not supported. The findings are inconsistent with Elzahar and Hussainey (2012).

8.6 The association between unweighted CRD scores and corporate characteristics

The fixed-effect model was used to test the association between unweighted CRD score and corporate characteristics. The constructed unweighted CRD Index (CRDIU) is the dependent variable and proxy for CRD practice among non-financial firms in Kenya. In total, 16 independent variables and 4 control variables were used. Table 8.21 below presents the results of the association between unweighted CRD scores and corporate characteristics.

Table 8.21: the association between CRDIU and corporate characteristics

Variable	Coefficient	t-Statistic	Prob.
C	-7.944	-2.230	0.027
FS	0.705	3.486	**0.001**
LEV	0.055	3.020	**0.003**
ROE	0.586	2.919	**0.004**
LIQ	-0.025	-0.014	0.988
SGR	2.583	3.074	**0.002**
OPR	1.341	2.818	**0.005**
CPX	-0.692	-0.413	0.679
BOA	-0.200	-0.214	0.831
BOS	0.105	0.562	0.574
BGD	2.694	1.735	**0.074**
BND	0.426	0.287	0.774
MOW	-0.124	-1.516	0.131
ROW	-0.017	-0.696	0.487
FOW	0.024	1.756	**0.080**
BLW	-0.086	-2.417	**0.016**
GOW	0.114	0.652	0.515
BIG4	0.265	0.141	0.888
CGQ	3.631	2.166	**0.031**
CRL	0.724	0.675	0.500
IND	3.295	2.670	**0.008**
No. of obs.	334		
R-squared	0.474		
Adj. R-squared	0.376		
F-statistic	4.836		
Prob(F-statistic)	0.000		
Durbin-Watson	2.302		

8.6.1 Significance of independent variables and model based on unweighted CRD

The regression coefficients were used to indicate the contribution of independent variables to the quality of CRD. The t-score significance indicates the significance of each variable in the determination of the quality of CRD. The findings in Table 8.21 above indicate that there are 8 out of 16 independent variables whose hypotheses are accepted by multivariate analysis at 1%, 5% and 10% significance levels. These variables include firm size, leverage, profitability, firm growth, operating risk, board gender diversity, foreign ownership and block ownership. However, the control variables were not significant except for corporate governance quality and audit quality at 10% and 1% significance levels respectively. The model F-test significance score was significant at 1% significance level (0.000), indicating that the model was a good fit for the variables tested and the coefficients of 16 corporate characteristics are jointly not equal to zero.

The model R squared of 47.4% indicates the model explains 47.4% variation in the quality of CRD. Similarly, the adjusted R squared of 37.6% indicates that 37.6% of the population variance would have been explained by the model had the sample been randomly selected from the whole population. The model does not explain a significant portion of the variation in the quality of CRD similar to the weighted scores model. The finding of the model is comparable with Elzahar and Hussainey (2012), Buckby et al. (2015) and Elamer et al. (2019a). However, Tauringana and Chithambo (2016) report a high R squared of 84.7% in Malawi. Table 8.22 below presents summary results of hypotheses testing and comparison between bivariate and multivariate analyses.

Table 8.22: Summary bivariate and multivariate results (unweighted score)

Dependent Variable: Corporate Risk Disclosure Quality (CRDIU)						
Independent Variables	**Hypothesis**	**Expected sign**	**Significance**		**Acceptance/Rejection of sign**	
			Univariate	**Multivariate**	**Univariate**	**Multivariate**
Firm-specific factors						
Firm size	1	+	**supported**	**supported**	**supported**	**supported**
Leverage	2	+	**supported**	**supported**	**supported**	**supported**
Profitability	3	+	not supported	**supported**	not supported	**supported**
Liquidity	4	+	**supported**	not supported	not supported	not supported
Firm growth	5	+	**supported**	**supported**	not supported	**supported**
Capital Expenditure	6	+	**supported**	not supported	**supported**	not supported
Operating Risk	7	+	**supported**	**supported**	not supported	**supported**
Board characteristics						
Board Activity	8	+	**supported**	not supported	**supported**	not supported
Board Size	9	+	**supported**	not supported	**supported**	**supported**
Board Gender Diversity	10	+	**supported**	**supported**	**supported**	**supported**
Board Independence	11	+	not supported	**supported**	**supported**	**supported**
Ownership structure						
Managerial Ownership	12	+	not supported	not supported	**supported**	not supported
Retail Ownership	13	-	**supported**	not supported	**supported**	**supported**
Foreign Ownership	14	+	not supported	**supported**	not supported	not supported
Block Ownership	15	-	not supported	**supported**	**supported**	**supported**
Government Ownership	16	+	**supported**	not supported	**supported**	**supported**
Control variables						
Audit Quality		+	**supported**	not supported	**supported**	**supported**
Cross-listing		+	**supported**	not supported	**supported**	**supported**
Corporate Governance Quality		+	**supported**	**supported**	**supported**	**supported**
Industry Type		+	**supported**	**supported**	**supported**	**supported**

8.6.2 Hypothesis 1: Firm size and CRD

The coefficient of firm size was 0.705 with a t-statistic of 3.486 and a p-value of 0.001 as shown in Table 8.22 above. The results indicate that there is a significant association between firm size and the quality of CRD among non-financial firms in Kenya at 1% level. This means that a unit increase in firm size results in an increase in the quality of CRD by 0.705 units. The hypothesis stating that firm size positively influences CRD quality is therefore accepted. Thus, large non-financial firms in Kenya disclose quality risk information more than small non-financial firms. The findings are supported by both bivariate and multivariate analyses. In addition, the findings are consistent with Madrigal et al. (2015), Elzahar and Hussainey (2012), Elshandidy and Shrives (2016), Sekome and Lemma (2014), Elshandidy and Neri (2015), Tauringana and Chithambo (2016), Netti (2019), Saggar and Singh (2017) and Gonidakis et al. (2020) who found that large companies disclose high-quality CRD.

However, the findings are not consistent with Domínguez and Gámez (2014) who found a negative relationship between firm size and quality of CRD. Furthermore, Rajab and Handley-Schachler (2009), Hassan (2009) and Mokhtar and Mellett (2013) found no association. Firm size represents agency theory, signalling theory, resource dependence theory, stakeholder theory and legitimacy theory. Thus, the two scoring systems provide similar findings on the effect of firm size on CRD quality among listed non-financial firms in Kenya.

8.6.3 Hypothesis 2: Leverage and CRD

The coefficient of leverage was 0.055 with a t-statistic of 3.020 and a p-value of 0.003 as shown in Table 8.22. The results indicate that there is a significant association at 1% level between leverage and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in leverage results in an increase in the quality of CRD by 0.055 units. Thus, the hypothesis stating that leverage influences CRD quality is supported. These findings are rejected by bivariate analysis but supported by multivariate analysis. The findings are consistent with the agency theory and signalling theory. Likewise, the findings are in line with Taylor et al. (2010), Buckby et al. (2015) and Tauringana and Chithambo (2016) who reported a positive association. However, the results are not in line with Amran et al. (2009) who found that leverage does not influence CRD practice among Malaysian firms. Therefore, leverage represents agency theory and signalling theory. The two scoring systems provide similar findings on the effect of leverage on CRD quality among listed non-financial firms in Kenya.

8.6.4 Hypothesis 3: Profitability and CRD

The coefficient of profitability was 0.586 with a t-statistic of 2.919 and a p-value of 0.004 as shown in Table 8.22. The results indicate that there is a significant association at 1% level between profitability and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in profitability level results in an increase in the quality of CRD by 0.586 units. Therefore, hypothesis 3 (H3), which states that the quality of CRD is positively associated with profitability level, is supported. This implies that profitable firms exhibit higher quality risk disclosure in Kenya than loss-making firms. These findings are supported by multivariate analysis but rejected by bivariate analysis. In addition, the findings support agency theory, stakeholder theory and legitimacy theory. However, studies on profitability and CRD report mixed findings. For instance, a positive association is observed (e.g. Ntim et

al., 2013; Seta & Setyaningrum, 2017). Contrary, the results are not consistent with Miihkinen (2012), Elzahar and Hussainey (2012) and Tauringana and Chithambo (2016) who found no association. Therefore, profitability represents agency theory, stakeholder theory and legitimacy theory. The two scoring systems provide different findings on the effect of profitability on CRD quality among listed non-financial firms in Kenya.

8.6.5 Hypothesis 4: Liquidity and CRD

The coefficient of liquidity was -0.025 with a t-statistic of -0.014 and a p-value of 0.988 as shown in Table 8.22. The results indicate that there is no significant association at 10% level between liquidity and the quality of CRD among non-financial firms in Kenya. Therefore, hypothesis 4 (H4), which states that the quality of CRD is associated with liquidity, is not supported by both bivariate and multivariate analyses. This implies that liquid non-financial firms in Kenya will not necessarily exhibit high-quality risk disclosure. In addition, the results are not consistent with the signalling theory. Moreover, the empirical literature presents mixed findings on the effect of liquidity on CRD practice. For instance, Elzahar and Hussainey (2012) found that liquidity does not influence CRD. Equally, Mangena and Pike (2005) found no association, whilst Gonidakis et al. (2020) found a positive association. The two scoring systems provide similar findings on the effect of liquidity on CRD quality among listed non-financial firms in Kenya.

8.6.6 Hypothesis 5: Firm growth and CRD

The coefficient of firm growth was 2.583 with a t-statistic of 3.074 and a p-value of 0.002 as shown in Table 8.22. The results indicate that there is a significant association at 1% level between firm growth and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in the firm growth results in an increase in the quality of CRD by 2.583 units. Thus, the hypothesis stating that firm growth positively influences CRD quality is supported by both bivariate and multivariate analyses. Empirically, the findings support agency theory, stakeholder theory and legitimacy theory. However, the findings are contrary to Ntim et al. (2013). Firm growth represents a multi-theoretical framework consisting of stakeholder theory, legitimacy theory and agency theory. Thus, the two scoring systems provide similar findings on the effect of a firm's growth on CRD quality among listed non-financial firms in Kenya.

8.6.7 Hypothesis 6: Capital expenditure and CRD

The coefficient of capital expenditure was -0.692 with a t-statistic of -0.4133 and a p-value of 0.679 as shown in Table 8.22. The results indicate that there is no significant association at 10% level between capital expenditure and the quality of CRD among non-financial firms in Kenya. Therefore, hypothesis 6 (H6), which states that the quality of CRD is associated with capital expenditure, is not supported. The findings are accepted by bivariate analysis and rejected by multivariate analysis. Furthermore, the findings contradict the agency theory perspective that increased capital spending is associated with improved corporate disclosures (Albassam, 2014). However, they are consistent with Ntim et al. (2013) who found capital expenditure to be not associated with CRD in South Africa. In the same vein, Ntim and Soobaroyen (2013) found a weak relationship between corporate disclosures and capital investment in South Africa. In addition, Albassam (2014) reports no association between capital expenditure and voluntary corporate disclosure in Saudi Arabia. The two scoring systems provide similar findings on the effect of capital expenditure on CRD quality among listed non-financial firms in Kenya.

8.6.8 Hypothesis 7: Operating risk and CRD

The coefficient of operating risk was 1.341 with a t-statistic of 2.818 and a p-value of 0.005 as shown in Table 8.22. The results indicate that there is a significant association at 1% level between operating risk and the quality of CRD among non-financial firms in Kenya. This means that a unit increase in the operating risk results in an increase in the quality of CRD by 1.341 units. Therefore, hypothesis 7 (H7), namely that the quality of CRD is associated with operating risk, is supported by both bivariate and multivariate analyses. The findings are consistent with agency theory and signalling theory. Likewise, the findings are consistent with Ntim et al. (2013) who found that operating risk is positively associated with CRD in South Africa. Furthermore, Miihkinen (2012) found that business risk significantly influences CRD in Finland, and Hassan (2009) found a significant association among listed firms in Egypt. The two scoring systems provide similar findings on the effect of operating risk on CRD quality among listed non-financial firms in Kenya.

8.6.9 Hypothesis 8: Board activity and CRD

The coefficient of board activity was -0.200 with a t-statistic of -0.214 and a p-value of 0.831 as shown in Table 8.22. The results indicate that there is no significant association at 10% level between board activity and the quality of CRD among non-financial firms in Kenya. Therefore, hypothesis 8 (H8), which states that the quality of CRD is associated with board activity, is not supported. The findings are accepted by bivariate analysis but rejected by multivariate analysis. Furthermore, the results do not support the expectations of agency theory. However, they are in line with previous studies that suggest that board meeting has no significant influence on CRD. For instance, Sánchez et al. (2011), Saggar and Singh (2017) and Allini et al. (2016) found no significant relationship between CRD and board activity among Spain, India and Italian firms respectively. Equally, Oliveira et al. (2018) reported no relationship between board meetings and CRD in Portugal and Spain. The two scoring systems provide different findings on the effect of the board meeting on CRD quality among listed non-financial firms in Kenya.

8.6.10 Hypothesis 9: Board size and CRD

The findings show that the coefficient of board size was 0.105 with t-statistics of 0.562 and a p-value of 0.574 as shown in Table 8.22. This implies that board size had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. Thus, the hypothesis that board size influences CRD quality, is not supported. These findings have been accepted by bivariate analysis but rejected by multivariate analysis. The findings are not consistent with agency theory, stakeholder theory, and resource dependence theory. The findings confirm the position of Elzahar and Hussainey (2012), Allini et al. (2016) and Oliveira et al. (2018) who found no association between board size and CRD in the UK, Italy, Portugal and Spain respectively. On the other hand, Elshandidy and Neri (2015) and Mokhtar and Mellett (2013) found a positive association between board size and CRD, while Guest (2009) found a negative association. The two scoring systems provide similar findings on the effect of board size on CRD quality among listed non-financial firms in Kenya.

8.6.11 Hypothesis 10: Board gender diversity and CRD

The findings revealed that the coefficient of board gender diversity was 2.694 with t-statistics of 1.735 and a p-value of 0.074 as shown in Table 8.22. This implies that gender diversity had a significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. This means that a unit increase in the board gender diversity results in an increase in the quality of CRD by 2.694 units. Thus, the hypothesis that board diversity influences CRD quality, is supported by both bivariate analysis and multivariate analysis. The finding is consistent with agency theory, resource dependence theory and stakeholder theory. Empirically, the finding is consistent with Allini et al. (2016), Ntim et al. (2013) and Saggar and Singh (2017). However, Allini et al. (2014) found a negative association. The two scoring systems provide different findings on the effect of board gender diversity on CRD quality among listed non-financial firms in Kenya.

8.6.12 Hypothesis 11: Board independence and CRD

The findings show that the coefficient of board independence was 0.426 with t-statistics of 0.287 and a p-value of 0.774 as shown in Table 8.22. This implies that board independence had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. Thus, the hypothesis stating that board independence influences CRD quality, is supported by bivariate analysis but rejected by multivariate analysis. In addition, the findings are not consistent with agency theory, legitimacy theory and stakeholder theory. Empirically, the current findings resonate with Elzahar and Hussainey (2012) who found an insignificant association in the UK. However, the results are not in line with Tauringana and Chithambo (2016), Abraham and Cox (2007), Ntim et al. (2013) and Oliveira et al. (2018) who found a positive association between CRD and board independence in Malawi, the UK, South Africa, and Portugal and Spain respectively. The two scoring systems provide different findings on the effect of board independence on CRD quality among listed non-financial firms in Kenya.

8.6.13 Hypothesis 12: Managerial ownership and CRD

The findings show that the coefficient of managerial ownership was -0.124 with t-statistics of -1.516 and a p-value of 0.131 as shown in Table 8.22 above. This implies that managerial ownership had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. Thus, the hypothesis stating that managerial ownership influences CRD quality is not supported. These findings are rejected by both bivariate and multivariate analyses. The results are not consistent with agency theory; thus, managerial

ownership does not enhance effective monitoring and control in Kenya. The results are, however, in line with Konishi and Ali (2007) and Kamaruzaman et al. (2019) who found no association. On the contrary, Albassam (2014) and Chakroun and Hussainey (2014) found a positive association.

8.6.14 Hypothesis 13: Retail ownership and CRD

As shown in Table 8.22 earlier, the results show that the coefficient of retail ownership was -0.017 with t-statistics of -0.696 and a p-value of 0.487. This implies that retail ownership had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. Thus, the hypothesis stating that retail ownership influences CRD quality is not supported by multivariate analysis. The findings suggest that because of their lower ownership stakes, retail investors have no incentive to monitor and influence CRD practice. This implies that listed firms in Kenya do not pay attention to retail investors when communicating risk and risk-related information. The results align with those of Konishi and Ali (2007) who found an insignificant association between ownership patterns and CRD in Japan. The two scoring systems provide similar findings on the effect of retail ownership on CRD quality among listed non-financial firms in Kenya.

8.6.15 Hypothesis 14: Foreign ownership and CRD

Table 8.22 above shows that the coefficient of foreign ownership was 0.024 with t-statistics of 1.756 and a p-value of 0.080. This implies that the coefficient of foreign ownership had a significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. This means that a unit increase in foreign ownership increases CRD quality by 0.024 units. Thus, the hypothesis stating that foreign ownership influences CRD quality is supported by multivariate analysis. The findings concur with agency theory, resource dependence theory and institutional theory. Empirically, the findings are in line with Haniffa and Cooke (2005), Muttakin and Subramaniam (2015) and Grassa et al. (2020) who found a positive association between corporate disclosure and foreign ownership. However, Mousa and Elamir (2014) found an insignificant association. Besides, Saggar and Singh (2017) found a negative association.

8.6.16 Hypothesis 15: Block ownership and CRD

The findings revealed that the coefficient of block ownership was -0.086 with t-statistics of -2.417 and a p-value of 0.016 as shown in Table 8.22. This implies that block ownership had a significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. This means that a unit increase in block ownership results in a decrease in the quality of CRD by -0.086 units. Thus, the hypothesis stating that block ownership influences CRD quality is supported. These findings are accepted by both bivariate and multivariate analyses. The findings indicate that block shareholding influences CRD quality in Kenya, which is consistent with Ntim et al. (2013). However, the results are contrary to Bufarwa et al. (2020). Block shareholding represents agency theory and resource dependence theory in explaining CRD practice in Kenya. The two scoring systems provide similar findings on the effect of block ownership on CRD quality among listed non-financial firms in Kenya.

8.6.17 Hypothesis 16: Government ownership and CRD

The findings show that the coefficient of government ownership was 0.114 with t-statistics of 0.652 and a p-value of 0.515 as shown in Table 8.22. This implies that the coefficient of government ownership had no significant influence on the quality of CRD among listed non-financial firms in Kenya at 10% level. The hypothesis stating that government ownership positively influences CRD quality is not accepted by multivariate analysis. Thus, firms with government ownership in Kenya will not necessarily disclose quality risk information. This is not consistent with agency theory, resource dependence theory, stakeholder theory and institutional theory.

Empirically, the results are consistent with Elshandidy et al. (2018) who reported no association between government ownership and CRD. However, Ntim et al. (2013) found a positive and significant association between government ownership and CRD in South Africa. Similarly, Eng and Mak (2003) found that government ownership positively affects CRD. Equally, Elamer et al. (2019a) found a positive association between government ownership and bank risk disclosure in MENA countries, but Dam and Scholtens (2012) and Allini et al. (2016) found a negative association. The two scoring systems provide similar findings on the effect of government ownership on CRD quality among listed non-financial firms in Kenya.

8.6.18 Control variable

First, the findings show that the coefficient of audit quality was 0.265 with t-statistics of 0.141 and a p-value of 0.888 as shown in Table 8.22. This implies that the coefficient of audit quality had no significant influence on the quality of CRD among the sampled firms in Kenya at 10% level. The hypothesis that audit quality positively influences CRD quality, is not supported. These findings are accepted by bivariate analysis, but not supported by multivariate analysis. The finding is consistent with Beretta and Bozzolan (2004) and Amran et al. (2009) in Italy and Malaysia respectively. However, Lajili and Zéghal (2005) and Sekome and Lemma (2014) found a positive association. The two scoring systems provide similar findings on the effect of audit quality on CRD quality among the sampled firms.

Secondly, the findings revealed that the coefficient of cross-listing was 0.724 with t-statistics of 0.675 and a p-value of 0.500 as shown in Table 8.22. This implies that cross-listing had no significant influence on the quality of CRD among the sampled firms in Kenya at 10% level. Thus, the hypothesis stating that cross-listing influences CRD quality is rejected. These findings are accepted by bivariate analysis but rejected by multivariate analysis. The findings partly confirm the position of Elzahar and Hussainey (2012) and Marzouk (2016) that the association between cross-listing and CRD quality is not significant in the UK and Egypt. The two scoring systems provide similar findings on the effect of cross-listing on CRD quality among listed non-financial firms in Kenya.

Thirdly, the findings revealed that the coefficient of corporate governance quality was 3.631 with t-statistics of 2.166 and a p-value 0.031 as shown in Table 8.22. This implies that the coefficient of quality of governance had a significant influence on the quality of CRD among the sampled firms. Thus, the hypothesis stating that corporate governance quality influences CRD quality is supported by both bivariate and multivariate analyses. The findings are in line with Ntim et al. (2013) who found a positive association between governance quality and CRD. However, Bufarwa et al. (2020) found an insignificant association between corporate governance committees and financial risk disclosure among listed firms in the UK. The two scoring systems provide similar findings on the effect of corporate governance quality on CRD quality among the sampled firms.

Lastly, the findings show that the coefficient of industry type was 3.295 with t-statistics of 2.670 and a p-value of 0.008 as shown in Table 8.22. This implies that industry type had a

significant influence on the quality of CRD among the sampled firms at 1% level. Thus, the hypothesis stating that industry type influences CRD quality is supported. The findings are accepted by both bivariate and multivariate analyses. In addition, the findings are consistent with Elzahar and Hussainey (2012) who reported a positive association between industry type and quality of CRD. The two scoring systems provide different findings on the effect of industry type on CRD quality among the sampled firms.

Table 8.23: Summary of multivariate results: weighted & unweighted CRD scores

Independent Variables	Multivariate (CRDIW)	Multivariate (CRDIU)
Firm-specific factors		
Firm size	**supported**	**supported**
Leverage	**supported**	**supported**
Profitability	not supported	**supported**
Liquidity	not supported	not supported
Firm growth	**supported**	**supported**
Capital Expenditure	not supported	not supported
Operating Risk	**supported**	not supported
Board characteristics		
Board Activity	**supported**	not supported
Board Size	not supported	not supported
Board Gender Diversity	not supported	**supported**
Board Independence	**supported**	**supported**
Ownership structure		
Managerial Ownership	not supported	not supported
Retail Ownership	not supported	not supported
Foreign Ownership	**supported**	**supported**
Block Ownership	**supported**	**supported**
Government Ownership	not supported	not supported
Control variables		
Audit Quality	not supported	not supported
Cross-listing	not supported	not supported
Corporate Governance Quality	**supported**	**supported**
Industry Type	not supported	**supported**

8.7 Summary of results and interpretation

The findings presented in Table 8.23 above indicate that there are 6 independent variables whose hypotheses are accepted by both weighted and unweighted scoring systems. These variables include firm size, leverage, firm growth, operating risk, foreign ownership and block ownership. The following variables were confirmed through multivariate analysis though not in the bivariate analysis, namely profitability, board independence, foreign ownership, and block ownership. The study shows that 6 independent variables were not confirmed by multivariate analysis. These variables include liquidity, capital expenditure, board size, managerial ownership, retail ownership, and government ownership. Besides, the control variables were not confirmed by multivariate analysis except for corporate governance quality and industry type.

8.8 Moderating effect of CDG on corporate characteristics and weighted CRD score

Regression analysis with a moderator variable, the Kenya Companies Act of 2015 was introduced in the model to determine the change when guidelines were not considered (2008-2014), and when guidelines were considered (2015-2019). Moderation analysis was performed on the fixed-effect regression to establish moderating influence of independent variables on CRD among listed non-financial firms in Kenya (Baron & Kenny, 1986). The effect of moderation is checked on the significance of independent variables and model before and after moderation. Table 8.24 presents the summary of moderation analysis on the relationship between weighted CRD quality and corporate characteristics. The interaction variable, CDG represents the Kenya Companies Act of 2015 and is a dummy variable that took the value of 1 when the guideline was considered (2015 to 2019), and 0 when the guideline was not considered (2008 to 2014). The following is the regression model used to assess the association between CRD scores and corporate characteristics is:

$$Y_{it} = \alpha_0 + \beta_i \sum_{i=1}^{16} CC_{it} * CDG_{it} + \sum_{i=1}^{4} \beta_i \, CONTROLS_{it} + \varepsilon_{i\varepsilon} \quad \text{.....Equation 2}$$

Where Y_{it} is CRDIW for the "CRD quality", CC refers to 16 corporate characteristic variables, namely firm size (FS), leverage (LEV), profitability (ROE), liquidity (LIQ), firm growth (SGR), capital expenditure (CPX), operating risk (OPR), board activity (BOA), board size (BOS), board gender diversity (BGD), board independence (BND), managerial ownership (MOW), retail ownership (ROW), foreign ownership (FOW), block ownership (BLW), and government ownership (GOW). CDG refers to the Kenya Companies Act of

2015. CONTROLS refers to the 4 control variables, namely audit quality (BIG4), cross-listing (CRL), corporate governance quality (CGQ), and industry type (IND). $\varepsilon_{i\varepsilon}$ refers to the error term.

Table 8.24: Moderating effect of CDG on determinants of weighted CRD

	Without Moderation		With Moderation	
Variables	**Coefficient(t-test)**	**p-value**	**Coefficient(t-test)**	**p-value**
C	17.776(-2.434)	0.015	5.124(-2.010)	0.045
FS	0.985(1.932)	**0.054**	0.773(3.944)	**0.000**
LEV	0.310(2.047)	**0.042**	0.372(3.486)	**0.000**
ROE	-0.141(-0.458)	0.647	0.034(1.536)	0.126
LIQ	0.147(0.191)	0.848	-0.240(-1.013)	0.312
SGR	2.249(2.443)	**0.015**	2.527(2.473)	**0.014**
OPR	1.200(2.729)	**0.007**	1.644(3.389)	**0.008**
CPX	-1.628(-0.549)	0.583	-2.896(-1.750)	**0.081**
BOA	1.367(2.473)	**0.014**	0.769(1.521)	0.129
BOS	0.851(0.691)	0.490	1.133(-2.747)	**0.006**
BGD	-1.447(-0.789)	0.430	-0.924(-1.874)	**0.062**
BND	0.045(1.827)	**0.069**	0.068(2.642)	**0.009**
MOW	-0.013(0.156)	0.876	-0.062(-1.212)	0.226
ROW	-0.022(0.417)	0.676	-0.017(0.201)	0.841
FOW	0.124(-2.108)	**0.036**	0.137(-1.964)	**0.048**
BLW	-0.102(-3.510)	**0.001**	-0.061(-2.274)	**0.024**
GOW	-0.196(-0.976)	0.330	-0.491(-2.515)	**0.012**
BIG4	1.146(0.729)	0.466	0.952(0.563)	0.574
CRL	-1.492(-0.720)	0.472	0.646(0.451)	0.652
CGQ	5.733(1.763)	**0.079**	7.208(2.583)	**0.010**
IND	-0.024(-0.012)	0.990	0.661(0.446)	0.656
CDG	8.456(3.821)	**0.000**		
No. of obs.		334		**334**
R-squared		0.4480		0.490
Adj. R-squared		0.3430		0.395
F-statistic		4.2550		5.157
Prob(F-statistic)		0.0000		0.000

8.8.1 Interpretation of moderating effect of independent variables on quality of CRD

The coefficient of firm size is 0.985 in the pre-CDG period at 10% significance level; firm size declined to 0.773 in the post-CDG at 1% significance level as shown in Table 8.24 above. This indicates that the positive association between firm size and CRD slightly dropped after the implementation of CDG in Kenya. However, the significance level improved from 10% to 1%. This finding suggests that the legislation slightly neutralised the effect of firm size in explaining CRD. The coefficient of leverage is 0.310 in the pre-CDG period at 5% significance level; the leverage level increased to 0.372 in the post-CDG period at 1% significance level. This indicates that the positive association between leverage and CRD slightly strengthened following the implementation of CDG in Kenya. The coefficient

of profitability is -0.141, which is insignificant at 10% level in the pre-CDG period, and profitability increased to 0.034 in the post-CDG period at the same significance level. This suggests that the association between profitability and CRD was not significant before and after the implementation of the guideline.

The coefficient of liquidity is 0.147, which is insignificant at 10% level in the pre-CDG period, liquidity changes to -0.240 in the post-CDG period at the same significance level. Though the coefficient of liquidity changes from positive to negative after the implementation of CDG, the change is not significant. This suggests that the association between liquidity and CRD was not significant before and after the implementation of the guideline. The coefficient of firm growth is 2.249 in the pre-CDG period at 5% significance level, and the firm's growth changes to 2.527 in the post-CDG period at the same level as shown in Table 8.24. This suggests that the positive association between firm growth and CRD increased from the pre-CDG to the post-CDG period. Thus, the association between firm growth and CRD strengthened after the implementation of CDG.

The coefficient of operating risk is 1.200 in the pre-CDG period at 1% significance level, and operating risk changes to 1.644 in the post-CDG period at the same level. This indicates the positive association between operating risk and risk disclosures increased following the implementation of CDG. The coefficient of capital expenditure level is -1.628 in the pre-CDG period which is insignificant at 10% level, capital expenditure changes to -2.896 in the post-CDG period, which is a significant 10%. This suggests that the negative association between capital expenditure and CRD increased after the implementation of CDG.

The coefficient of board activity is 1.367 in the pre-CDG period and is significant at 5%. Board activity changes to 0.769 in the post-CDG period, which is insignificant at the 10% level as shown in Table 8.24. This suggests board activity weakened after the implementation of CDG. The coefficient of board size is 0.851 in the pre-CDG period, which is insignificant at 10% level. Board size changes to 1.133, which is significant at 1% level in the post–CDG period. This indicates that the positive association between board size and risk disclosures improved following the implementation of CDG.

The coefficient of board gender diversity is -1.447 in the pre-CDG period which is insignificant at 10% level, whereas board gender diversity changes to -0.924 in the post-CDG period at 10% as shown in Table 8.24 above. This indicates that the negative association

between board gender diversity and risk disclosures declined following the implementation of CDG. The coefficient of board independence is 0.045 in the pre-CDG period at 10% significance level, and board independence changes to 0.068 in the post-CDG period at 1% level. This suggests that the positive association between board independence and risk disclosure strengthened in the post-CDG period.

The coefficient of managerial ownership is -0.013 in the pre-CDG period, which is insignificant at the 10% level, and it changes to -0.062 in the post-CDG period at the same level. This suggests that the association between managerial ownership and risk disclosure is not significant before and after the implementation of CDG. The coefficient of retail ownership is -0.022 in the pre-CDG period, which is insignificant at the 10% significance level, however, retail ownership changes to -0.017 in the post-CDG period at the same level. This suggests that the association between retail ownership and risk disclosure is not significant after the implementation of CDG.

The coefficient of foreign ownership is 0.124 in the pre-CDG period, which is significant at the 5% level, and foreign ownership changes to 0.137 in the post-CDG period at 5% level. This suggests that the association between foreign ownership and risk disclosure increased after the implementation of CDG. The coefficient of block ownership is -0.102 in the pre-CDG period at 1% level and changes to -0.061 in the post-CDG period at 5%. This suggests that the negative association between block ownership and risk disclosure decreased after the implementation of CDG. It further suggests that the legislation neutralised the influence of block investors among listed firms in Kenya.

The coefficient of government ownership is -0.196 in the pre-CDG period, which is insignificant at 10% level. It changes to -0.491 in the post-CDG period, which is significant at 5% level as shown in Table 8.24 above. This suggests that the negative association between government ownership and risk disclosure increases after the implementation of CDG. The model F-test significance score is significant at 1% level (0.000), suggesting that the model is a good fit for the variables tested and the coefficients of the corporate characteristics are jointly not equal to zero. The R squared and adj. R squared, without consideration of the Kenya Companies Act guidelines, are 44.8% and 34.3% respectively. The R squared and adj. R squared improved to 49.0% and 39.5%. This suggests that the

implementation of the Kenya Companies Act of 2015 had some moderating effect on the quality of CRD among listed non-financial firms in Kenya.

8.9 Moderating effect of CDG on corporate characteristics & unweighted CRD

Regression analysis with a moderator variable, the Kenya Companies Act of 2015, was introduced in the model to determine the change when guidelines were not considered (2008-2014), and when guidelines were considered (2015-2019). Table 8.25 below presents the model summary of moderation analysis on the relationship between unweighted CRD quality scores and corporate characteristics.

Table 8.25: Moderating effect of CDG on determinants of unweighted CRD

	Without Moderation		With Moderation	
Variables	**Coefficient(t-tests)**	**p-value**	**Coefficient(t-tests)**	**p-value**
C	9.750(1.566)	0.118	4.387(-1.150)	0.251
FS	0.634(2.087)	**0.037**	0.617(3.204)	**0.002**
LEV	0.055(3.180)	**0.002**	0.154(3.504)	**0.000**
ROE	0.505(2.436)	**0.016**	1.339(3.446)	**0.001**
LIQ	0.065(1.016)	0.310	-0.038(-0.255)	0.799
SGR	1.562(0.930)	0.353	2.618(1.831)	**0.068**
OPR	-1.425(-2.129)	**0.034**	-1.857(-2.098)	**0.037**
CPX	-0.985(-0.276)	0.782	-2.960(-1.069)	0.286
BOA	0.126(0.030)	0.976	0.380(0.433)	0.665
BOS	0.146(0.794)	0.427	0.509(-1.084)	0.279
BGD	-2.065(-0.753)	0.452	-1.820(-1.901)	**0.058**
BND	0.023(-1.03)	0.302	0.036(1.785)	**0.075**
MOW	-0.086(-1.095)	0.274	-0.032(-0.544)	0.586
ROW	-0.015(-0.168)	0.866	-0.029(0.746)	0.456
FOW	0.107(-1.739)	**0.083**	0.160(-2.195)	**0.029**
BLW	-0.094(-2.256)	**0.025**	-0.079(-1.841)	**0.067**
GOW	0.100(0.673)	0.502	-0.026(-1.046)	0.296
BIG4	0.683(0.436)	0.663	1.187(0.875)	0.382
CRL	-0.300(-0.184)	0.854	0.062(0.037)	0.970
CGQ	6.875(1.775)	**0.077**	6.477(3.193)	**0.015**
IND	1.742(1.296)	0.196	1.449(0.798)	0.425
CDG	5.166(3.806)	**0.000**		
No. of obs.		334		**334**
R-squared		0.485		0.531
Adj R-squared		0.387		0.444
F-statistic		4.948		6.087
Prob(F-statistic)		0.000		0.000

8.9.1 Interpretation of moderating effect of independent variables on unweighted CRD

The coefficient of firm size is 0.634 in the pre-CDG period at 5% significance level, and drops minimally to 0.617 in the post–CDG at 1% significance level as shown in Table 8.25. This indicates that the positive association between firm size and CRD slightly dropped, but the significance level improved after the implementation of CDG in Kenya. The coefficient of leverage is 0.055 in the pre-CDG period at 1% significant level. The leverage level increased to 0.154 in the post-CDG period at the same significance level. This suggests that a positive association between leverage and risk disclosures increased following the implementation of CDG in Kenya.

The coefficient of profitability is 0.505 in the pre-CDG period at 5% significance level and changes to 1.339 in the post-CDG period at 1% significance level. This suggests that the positive association between profitability and risk disclosure strengthened after the implementation of CDG. The coefficient of liquidity is 0.065, which is insignificant at 10% level in the pre-CDG period. Liquidity level changes to -0.038 in the post-CDG period at the same level. This suggests that the positive association between liquidity and risk disclosure changed to negative but remained insignificant before and after the implementation of CDG.

The coefficient of firm growth is 1.562 in the pre-CDG period, which is insignificant at 10% and changes to 2.618 in the post-CDG period, which is significant at the same level. This indicates that the positive association between firm growth and risk disclosure strengthened after the implementation of CDG. The coefficient of operating risk is -1.425 in the pre-CDG period at 5% significance level, and changes to -1.857, which is significant, in the post-CDG period at the same level. This indicates that the association between operating risk and risk disclosures increased after the implementation of CDG. The coefficient of capital expenditure is -0.985 in the pre-CDG period, which is insignificant at 10% level, and changes to -2.960 in the post-CDG period, which is insignificant at the same level. This suggests that the association between capital expenditure and risk disclosure increased, but remained insignificant before and after the implementation of CDG.

The coefficient of board activity is 0.126 in the pre-CDG period, which is insignificant at 10%. The coefficient of board activity changes to 0.380 in the post-CDG period at the same significance level. This suggests that the association between board activity and risk disclosure is not significant before and after the implementation of CDG. The coefficient of

board size is 0.146 in the pre-CDG period, which is insignificant at 10% level. The coefficient of board size changes to 0.509 in the post–CDG period at the same significance level. This indicates that the association between board size and risk disclosure is not significant before and after the implementation of CDG.

The coefficient of board gender diversity is -2.065 in the pre-CDG period and not significant at 10% level. It changes to -1.820 in the post-CDG period, which is significant at 10% level. This indicates that the negative association between board gender diversity and risk disclosures declined following the implementation of CDG. The coefficient of board independence is 0.023 in the pre-CDG period, which is insignificant at 10% level, and it changes to 0.036 in the post-CDG at 10% significance level. This suggests that the positive significant association between board independence and CRD improves from the pre-CDG to the post-CDG period.

The coefficient of managerial ownership is -0.086 in the pre-CDG period and not significant at the 10% level. It changes to -0.032, which is insignificant in the post-CDG period. This suggests that the association between managerial ownership and risk disclosure remains insignificant before and after the implementation of CDG. The coefficient of retail ownership is -0.015 in the pre-CDG period, which is not significant at 10% level, and it changes to -0.029 in the post-CDG period at the same significance level. This suggests that the association between retail ownership and risk disclosure remains insignificant before and after the implementation of CDG.

The coefficient of foreign ownership level is 0.107 in the pre-CDG period at the 10% level. It changes to 0.160 in the post-CDG period, which is significant at 5% level. This suggests that the positive association between foreign ownership and CRD strengthened after the implementation of CDG. The coefficient of block ownership is -0.094 in the pre-CDG period at 5% level. It changes to -0.079 in the post-CDG at 10% significance level. This suggests that the negative association between block ownership and risk disclosure slightly weakened after the implementation of CDG.

The coefficient of government ownership is 0.100 in the pre-CDG period, which is insignificant at 10% level. The coefficient changes to -0.026 in the post-CDG period at the same significance level. The relationship between government ownership and risk disclosure remains insignificant before and after the implementation of CDG. The model F-test

significance score is significant at 1% level (0.000), suggesting that the model is a good fit for the variables tested, and the regression coefficients of the corporate characteristics are jointly not equal to zero. The R squared and adj. R squared, without consideration of the Kenya Companies Act guidelines, is 48.5% and 38.7% respectively. The R squared and adj. R squared improves to 53.1% and 44.4%. This suggests that the implementation of the Kenya Companies Act of 2015 had some moderating effect on the quality of CRD among listed non-financial firms in Kenya.

8.10 Model robustness and endogeneity problems

The endogeneity problem occurs when the independent variables are endogenous and correlated with the error term (Wooldridge, 2015; Abdallah et al., 2015). If the independent variables are endogenous, the estimators will be biased and the effect of firms specific, board characteristics and ownership structure on the quality of CRD cannot be inferred. Controlling for potential endogeneity problems helps to ensure the robustness and stability of the estimated coefficients (Albassam, 2014; Abdallah et al., 2015). The endogeneity may be caused by missing variables, measurement error, and simultaneity (Wooldridge, 2015). Omission of the variable may arise as a result of the unavailability of data (Wooldridge, 2015). Measurement error arises when the variables under study cannot be adequately constructed while simultaneity arises when the independent variable is simultaneously determined by the dependent variable (Wooldridge, 2015). To overcome endogeneity bias, the present study adopted several statistical approaches in line with Albassam (2014), Elamer et al. (2019a), Elamer et al. (2019b) and Ntim et al. (2013). First, the study used unweighted CRD score for robustness checks. Secondly, control variables were included in the model to manage the problems caused by omitted variables correlated with the dependent variable.

Thirdly, the study adopted panel data regression techniques to control for potential endogeneities from unobserved company heterogeneities. The use of time series and cross-sectional data help to solve simultaneity issues (Wooldridge, 2015). Fourthly, to address measurement issues in the model the study used lagged structure in all the panel data regression models. This is because risk disclosure may be influenced by the previous year's independent variables. The findings from the lagged structure were then compared with the unlagged structure to detect any endogeneity issues (Appendix XI). The findings indicate that the results are similar in both models. In particular, firm size, leverage, profitability, liquidity, firm growth, operating risk, capital expenditure, board activity, board size, board gender

diversity, board independence, managerial ownership, retail ownership, foreign ownership, block ownership and government ownership. Similarly, R squared and adjusted R squared in lagged and unlagged were the same. The lagged and unlagged structure suggests that endogeneity is not a problem in all regression models. Moreover, the F score for both models was still significant at 1% significance level.

Next, the Ramsey reset test was used to detect misspecification problems which can be a threat to potential endogeneity. The findings from Ramsey reset indicated that the model does not suffer from any misspecification as reported under the linearity test in Table 8.3 earlier. Lastly, generalised methods of moments (GMM) may be used to deal with endogeneity problems (Blundell & Bond, 1998). However, to ensure that the GMM methodology is appropriate for the study, a regressor endogeneity test was conducted to determine the existence of an endogenous connection between the quality of CRD and corporate characteristics variables. The findings from the regressor endogeneity test indicated that J statistics in both weighted and unweighted scoring systems were more than 0.05 as shown in Tables 8.26 and 8.27 respectively. Hence, the study concludes that in the model there is no endogenous connection between CRD and corporate characteristics variables.

Table: 8.26: Regressor endogeneity test: weighted score

	Value	Df	Probability
Difference in J-stats	10.81523	11	0.4589
J-statistic summary:			
	Value		
Restricted J-statistic	10.81523		
Unrestricted J-statistic	1.18E-38		

Table 8.27: Regressor endogeneity test: unweighted score

	Value	Df	Probability
Difference in J-stats	10.65634	11	0.4725
J-statistic summary:			
	Value		
Restricted J-statistic	10.65634		
Unrestricted J-statistic	9.96E-39		

8.11 Chapter summary

The chapter documented the results of three empirical research questions. The first objective tested the quality of CRD among listed non-financial companies in Kenya. The question was addressed by analysing whether there is "HQCRD", and if not, what level of quality is achieved using descriptive analysis. Two scoring indices were used to measure the quality of CRD, namely weighted and unweighted. The quality of CRD was found to be low among the sampled firms in Kenya. However, there is a slightly higher quality reported in the unweighted system (58%) than in the weighted (41%). Secondly, there is a high degree of variation in CRD quality over the study period. Thirdly, CRD quality improved over time, suggesting that more companies are disclosing more risk information than before. Fourthly, there is a significant difference between the CRD scores achieved in both weighted and unweighted systems. The difference between the two scoring systems indicates that they measure different constructs of 'HQCRD'. Lastly, the quality of CRD varies from company to company in both scoring systems, and such variation justifies the need for a study to establish factors that explain the CRD behaviour among non-financial listed firms in Kenya.

The second objective tested whether there was a significant relationship between the quality of CRD and corporate characteristics. This objective was addressed using both bivariate and multivariate analysis. The findings indicate that there are 11 variables whose hypotheses have been accepted by bivariate analysis. These variables include firm size, leverage liquidity, firm growth, capital expenditure, operating risk, board activity, board size, board gender diversity, retail ownership, and government ownership. In addition, all the control variables have been accepted by bivariate analysis, namely audit quality, cross-listing, corporate governance quality and industry type. Similarly, there are 6 independent variables whose hypotheses have been accepted by both weighted and unweighted scoring systems. These variables include firm size, leverage, firm growth, operating risk, foreign ownership and block ownership. The study found that the following independent variables were not confirmed by the multivariate analysis. These variables include liquidity, capital expenditure, board size, managerial ownership, retail ownership and government ownership. Besides, the control variables were not confirmed by multivariate analysis except for corporate governance quality and industry type. The findings confirm the applicability of a multi-theoretical framework in explaining the quality of CRD among sampled firms as previously proposed. This confirms the quality of CRD is multi-dimensional in nature and, relying on one index, may only capture a certain aspect of CRD quality.

The third objective tested whether there was a significant moderating effect of the Kenya Companies Act of 2015 on the relationship between corporate characteristics and quality of CRD. Moderating the effect of CRD on the quality of CRD, the result indicates the quality of CRD improved with the implementation of the Companies Act of 2015. Based on weighted CRD scores, the Kenya Companies Act of 2015 had a moderating effect on firm size, leverage, firm growth, operating risk, capital expenditure, board activity, board size, board gender diversity, board independence, foreign ownership, block ownership and government ownership. Conversely, the Kenya Companies Act of 2015 had no moderating effect on profitability, liquidity, managerial ownership and retail ownership.

Based on unweighted CRD scores, the Kenya Companies Act of 2015 had a moderating effect on firm size, leverage, profitability, firm growth, board gender diversity, board independence, operating risk, foreign ownership and block ownership. On the contrary, the Kenya Companies Act of 2015 had no moderating effect on liquidity, capital expenditure, board activity, board size, managerial ownership, retail ownership and government ownership. Moreover, the following variables were accepted after moderating for the Kenya Companies Act of 2015 in both scoring indices, namely firm size, leverage, firm growth, operating risk, board gender diversity, board independence, foreign ownership and block ownership.

Furthermore, three hypotheses have been rejected consistently in both scoring indices, namely liquidity, managerial ownership and retail ownership. To check for model robustness, the study employed the following statistical approaches. First, it used unweighted CRD measures in all models. Secondly, control variables were added in the model to manage the problems caused by omitted variables correlated with the dependent variable. Thirdly, it used panel data regression techniques to control for potential endogeneity. Next, the study used lagged structure in all panel data regression models to address measurement issues. In addition, the Ramsey reset test was used to detect measurement misspecification problems, which can be a threat to potential endogeneity.

CHAPTER NINE

STAKEHOLDERS' PERCEPTIONS OF CRD

9.1 Introduction

This chapter responds to the sixth and seventh empirical research questions. The sixth empirical question was: What are the preparers' reasons for the CRD practice among non-financial firms in Kenya? The seventh empirical research question was: What is the stakeholders' understanding of the meaning of HQCRD among non-financial firms in Kenya? The study used a sequential mixed-method approach. This chapter presents the views of the players in the development and the presentation of CRD, which were obtained through semi-structured interviews. This helps to interpret and triangulate the results of bivariate and multivariate analyses presented in chapter eight. The CRD stakeholders include preparers and users of the risk information identified from the literature. The chapter is organised as follows: Section 9.1 is the introduction, Section 9.2 presents the interview sample representation, while Section 9.3 focuses on preparers' perceptions of determinants of CRD. Then, Section 9.4 is on stakeholders' perceptions of the meaning of CRD, while Section 9.5 is based on stakeholders' understanding of the meaning of HQCRD, and Section 9.6 focuses on the significance of the proposed CRD framework. Lastly, Section 9.7 is a comparison between quantitative and qualitative analysis, and Section 9.8 is the chapter summary.

9.2 Interview sample presentation

The study adopted an explanatory sequential design to respond to the research questions (McFie, 2006; Tauringana & Chithambo, 2016; Wangombe, 2013). This approach entails first conducting quantitative analysis and then doing qualitative analysis (Creswell, 2014; Saunders et al., 2009). The mixed method is appropriate for the study because CRD is a multi-faceted concept that cannot be captured in totality using one approach (Tauringana & Chithambo, 2016). Furthermore, the approach provides robust inferences and opportunities to present divergent views (Tashakkori & Teddlie, 2003). This helps to explore the multi-dimensional nature of CRD in totality, within the context of listed non-financial firms in Kenya. The qualitative analysis was conducted through interviews to interrogate the results of the quantitative analysis (chapter eight). Semi-structured interviews were considered appropriate for the study because they provide an opportunity to probe answers, where the researcher wants to explain or build on interviewee responses (Saunders et al., 2009). Similarly, semi-structured interviews are considered in-depth, and not based on rigid

set of pre-established questions. Instead, they are characterised by guiding themes, which help to direct the conversation. In addition, the order of the questions may be varied depending on the flow of the conversation (Saunders et al., 2009). The semi-structured interviews were conducted with internal (preparers) and external stakeholders (users) to provide a balanced view (McFie, 2006; ACCA, 2014; Albassam, 2014; CFA Institute, 2016; Wangombe, 2013). The internal stakeholders include financial controllers and boards of directors, while external stakeholders include regulators, academicians, shareholders, external auditors, and financial analysts. On one hand, internal stakeholders were relevant for the study to reveal the preparers' thinking, concerns, and materiality assessment process in deciding what to disclose. On the other hand, external stakeholders were the best to reveal the needs and wishes of users regarding CRD (ACCA, 2014; CFA Institute, 2016).

The quantitative analysis aims to achieve depth of understanding and emphasises the generalisability of findings. In contrast, the qualitative analysis aims to achieve the breadth of knowledge and emphasises saturation (Palinkas et al., 2015). The difference in expectations under each approach determines the number of participants required to achieve the objective (Palinkas et al., 2015). Thus, the present study focused on the quality of information to achieve saturation rather than the number of people interviewed (Haniffa & Hudaib, 2007; Mahmood et al., 2018). This was achieved through carefully selected interviewees who had in-depth knowledge rather than the number of interviewees (Haniffa & Hudaib, 2007; Mahmood et al., 2018). The participants were selected through the purposive sampling technique (Palinkas et al., 2015; Mahmood et al., 2018). This approach is widely used in qualitative research to identify and choose information-rich cases regarding CRD practices (Palinkas et al., 2015). The technique involves first identifying the interviewees (stakeholders) who are knowledgeable about the phenomenon under study (Creswell, 2014).

The identified stakeholders were considered relevant and knowledgeable about CRD practices in Kenya (McFie, 2006; Albassam, 2014; Muzahem, 2011; CFA Institute, 2016). For instance, the board of directors oversees corporate reporting and ensures that organisations have robust risk management systems; finance managers work on behalf of the directors to ensure transparency in CRD; external auditors influence CRD behaviour through the auditing process, and financial analysts act as financial intermediaries between the management and shareholders in providing investment advice. Furthermore, shareholders represent investors in the NSE targeted with CRD while regulators represent supervisory

bodies of capital markets, and lastly, academicians represent accounting experts in Kenya. The qualitative analysis targeted 27 stakeholders in total, but four stakeholders (F7, FA4, FA5, and S3) failed to show up for the interviews, citing work-related challenges. Table 9.1 presents a summary of the interview participants.

Table 9.1: Interview sample presentation

No	Stakeholder group	Code	Category	Gender	Qualification	Type
1	Board of directors	B1	Listed firm	Male	Masters	Telephone
2	Board of directors	B2	Listed firm	Male	Masters	Face to face
3	Board of director	B3	Listed firm	Female	Masters	Telephone
4	Finance manager	F1	Listed firm	Male	Bachelors	Face to face
5	Finance manager	F2	Listed firm	Male	Masters	Face to face
6	Finance manager	F3	Listed firm	Male	Masters	Face to face
7	Finance manager	F4	Listed firm	Male	Masters	Face to face
8	Finance manager	F5	Listed firm	Female	Bachelors	Telephone
9	Finance manager	F6	Listed firm	Male	Masters	Telephone
10	Finance manager	F7	Listed firm	Female	Masters	N/A
11	External Auditor	EA1	Big4	Male	Bachelors	Face to face
12	External Auditor	EA2	Big4	Male	Bachelors	Face to face
13	External Auditor	EA3	Big4	Female	Bachelors	Face to face
14	External Auditor	EA4	Big4	Female	Bachelors	Face to face
15	Financial Analyst	FA1	Investment Bank	Male	Bachelors	Telephone
16	Financial Analyst	FA2	Investment Bank	Female	Masters	Face to face
17	Financial Analyst	FA3	Investment Bank	Male	Bachelors	Face to face
18	Financial Analyst	FA4	Investment Bank	Male	Bachelors	N/A
19	Financial Analyst	FA5	Investment Bank	Male	CPA	N/A
20	Shareholder	S1	Individual	Female	CPA	Face to face
21	Shareholder	S2	Individual	Male	Bachelors	Face to face
22	Shareholder	S3	Individual	Male	CPA	N/A
23	Regulator	R1	CMA	Male	Bachelors	Face to face
24	Regulator	R2	NSE	Male	Masters	Face to face
25	Academician	A1	Professional	Male	Masters	Face to face
26	Academician	A2	Professional	Female	PhD	Face to face
27	Academician	A3	Professional	Male	Masters	Telephone

The interviews were conducted face to face and through telephone calls. Of the 23 interviews conducted, 6 were via telephone (zoom) in line with the government COVID-19 protocols for social distancing. The interviews were conducted at a time and place convenient to the interviewees. The researcher shared information before the interview, and this information included, for example, a letter from the university detailing the purpose of the study, the letter of authorisation for the interview from the Research Ethics Committee of Strathmore University (Appendix XII), the time required for the interview, and the interview guide. The

interview questions were developed from CRD literature, analysis of quantitative data as presented in Chapter eight, and adapted to the Kenyan context (Creswell, 2014). The interview questions are set out in Appendix V and Appendix VI.

The interviews commenced with the researcher (interviewer) introducing himself to the stakeholder (interviewee). After thanking them for participating, a brief introduction was conducted detailing the purpose of the study and the interview. The interviewees were assured that the information provided would be used for academic purposes. Moreover, to ensure confidentiality, the researcher assured the interviewees that their names would be kept secret after the interview. The interview was conducted and recorded after obtaining consent from each interviewer. The interview process lasted about one hour and took place in the year 2020. In addition, the interviews were conducted in English, which is the official language in Kenya. The interviewees were invited to make comments on issues that were not captured in the interview guides.

The qualitative data are analysed through thematic analysis to explore CRD and its determinants among listed non-financial firms in Kenya. The thematic analysis involves extracting concepts, constructing an index of themes, sub-themes, and coding. The themes and sub-themes are products of reading and re-reading transcripts. The analysis is made on the spreadsheet with conclusions drawn from available records (McFie, 2006). The coding involved extracting concepts from the raw data and developing themes and sub-themes. The study identified 16 concepts which were categorised into three themes, namely firm-specific variables (firm size, leverage, profitability, liquidity, firm growth, capital expenditure, and operational risk), board characteristics (board activity, board size, board gender diversity, and board independence), and ownership structure (managerial ownership, retail ownership, foreign ownership, block ownership, and government ownership). The central theme was "corporate risk disclosure".

The researcher assembled concepts and linked them to sub-themes, and consequently, assembled themes to identify similarities and differences. The next section presents views of the stakeholders on CRD practice among listed non-financial firms in Kenya. More specifically, it explores the preparers' (internal stakeholder) perceptions on the determinants of CRD among listed non-financial firms in Kenya, and users' (external stakeholder) understanding of the meaning of HQCRD among listed non-financial firms in Kenya.

9.3 Preparers' perceptions on determinants of CRD in Kenya

This section evaluates factors influencing CRD behaviour among listed non-financial firms in Kenya. First, the section presents preparers' reasons for the practice of CRD for the hypotheses tested in Chapter eight. Though CRD in Kenya is mandated, it could be voluntary to the extent that the disclosed information is broader and more detailed. Secondly, this section facilitates the interpretation of quantitative results to understand why some listed companies in Kenya disclose more while others disclose less or nothing at all. Thirdly, the section is divided into three sub-sections: firm-specific factors, board characteristics, and ownership structure.

9.3.1 Firm-specific factors and CRD

This sub-section presents the preparers' perceptions of firm-specific factors and CRD behaviour among listed non-financial firms in Kenya. The firm-specific factors were described in terms of firm size, leverage, profitability, liquidity, firm growth, operating risk, and capital expenditure. By and large, empirical literature presented mixed findings on the influence of firm-specific factors and CRD practice. The interview results for each firm-specific factor and CRD are presented below.

First, when preparers were asked about the influence of firm size on CRD practice, the majority confirmed support for the positive association. For instance, BI, B3, F2 and F1 believed that firm size positively influenced CRD behaviour. In their explanation, they indicated that big firms are characterised by high level of activities and investment projects which expose them to risks and uncertainties. In this regard, large non-financial firms provide more risk information than small non-financial firms in Kenya. F2 stated that:

> […] big firms tend to have high level of activities and investment projects, which expose them to different risks and uncertainties […] as result, shareholders demand more in terms of disclosure…doing so assures them that the firm can identify, assess and mitigate internal and external risks arising from their operations […].

In the same vein, B2 suggested that big firms are highly regulated compared to small firms, and to serve a wide range of regulations, they provide more risk information than small firms. F4 added that society expects more from large firms in terms of disclosure and risk is one of them. The positive association between firm size and CRD is consistent with Madrigal et al. (2015), Elshandidy and Shrives (2016), Sekome and Lemma (2014), Elshandidy and Neri (2015) and Saggar and Singh (2017). F6 expressed a similar view that big firms have more resources than small firms. In this sense, big firms can deploy qualified professionals who

ensure elaborate risk reporting mechanisms. Therefore, big firms provide better CRD than small firms in Kenya. F6 stated:

> […] I believe that the larger you are, the more resources and assets you have […] large firms use their assets and resources to deploy competent finance, accounting and risk management professionals […] who can manage difficult tasks such as high-quality corporate risk disclosure […].

However, F5 held a different view that firm size does not influence CRD. In her explanation, she argued that CRD is largely dependent on management's desire to provide risk information and not the firm size. In addition, F3 added that IFRS and the Kenya Companies Act are not sufficient to guide CRD in Kenya; thus, managers have more room to determine the depth and breadth of risk disclosure. Nevertheless, going by the majority of preparers, firm size positively influences CRD behaviour among listed non-financial firms in Kenya. The preparers' view represents agency theory, resource dependence theory, signalling theory, stakeholder theory, and legitimacy theory.

Secondly, when preparers were asked about the influence of leverage on CRD practice, the majority confirmed support for the positive association. For instance, F1, F2, and B1 believed that leverage positively influences CRD practice. In their explanation, they indicate that leverage comes with hidden costs, and it is associated with solvency risks, As a result, lenders demand more risk information. In addition, having no debt in the capital structure reduces firms' exposure to risks. F1 stated that:

> […] debt exposes firms to solvency risks […] this is because debt includes some hidden costs such as transaction costs, penalties, interest charges, and other compliance terms […] having no debt reduces firms' exposure to risks and level of disclosure […] firms financed by debt have to worry about solvency risks and disclosure levels to meet lenders' expectations, while firms with no debt have nothing to worry about solvency risks […].

Similarly, B3 argued that leverage increases monitoring by the capital providers, in this regard, levered firms provide more risk and risk-related information to mitigate the information asymmetry between managers and capital providers. This explanation represents the agency theory perspective in explaining CRD behaviour in Kenya. She stated that:

> […] the more geared you are, the riskier you are, firms with high debt exposure attract monitoring by capital providers […] this gives managers an incentive to safeguard themselves through elaborate risk disclosure in the annual report […] capital providers may be worried and reporting gives some indications about compliance […].

This is in line with Taylor et al. (2010), Oliveira et al. (2011), Buckby et al. (2015) and Saggar et al. (2021). However, F4 and F6 provided a contrary opinion that leverage is negatively associated with CRD practice. After probing further, F4 argued that low-levered firms use disclosure to signal their effectiveness in managing debt. This explanation supports the signalling theory perspective that low debt is seen as good news while high debt is seen as bad news. F4 stated:

> […] I think low leverage is associated with effectiveness in managing debt […] low leveraged firms provide better risk disclosure to signal debt-paying capacity, while highly leveraged firms are cautious when disclosing risk to avoid a negative perception by lenders […].

This resonates with Dobler et al. (2011), Miihkinen (2012), Ntim et al. (2013) and Habbash et al. (2016) who found a negative association. Besides, F3 and F5 maintained that CRD is largely dependent on management's willingness to disclose risk when guidelines are not clear. Despite the mixed findings, the majority of preparers agreed that leverage influence CRD. The preparers' feedback represents agency theory and signalling theory in explaining CRD behaviour among listed non-financial firms in Kenya.

Thirdly, when preparers were asked about the influence of liquidity on CRD practice, they provided mixed findings, for instance, B2 and F6 supported the positive association. More specifically, F6 pointed out that liquidity gives the organisation the freedom to adjust to changes in the operating environment such as CRD. F6 stated that:

> […] liquidity level has a direct connection with risk disclosure, liquid firms can afford robust risk reporting programs […] liquidity gives them flexibility and freedom to adjust to changes in the operating environment, such as risk reporting […].

Equally, F4 argued that liquidity is associated with effectiveness in the management of working capital. The interviewee's response represents signalling theory, which holds that high liquid firms wish to distinguish themselves from less liquid firms through CRD. F4 stated that:

> […] liquidity is a sign of effectiveness in the management of working capital […] high-liquid firms have a lot to share with stakeholders regarding their success in managing working capital […] good news always takes priority when deciding what to disclose in the annual report […].

This is in line with Gonidakis et al. (2020) who found a positive association between liquidity and CRD practice. However, F1, F2, and B3 expressed a different perspective that liquidity is negatively associated with CRD. They added that suppliers associate low liquidity with

funding risks. In this sense, low liquidity is associated with challenges in obtaining short-term finance; hence, less liquid firms manage suppliers through CRD by assuring them that they can obtain funding. F1 stated that:

> […] low liquidity is perceived as bad news by suppliers […] it is associated with funding liquidity risks and increased cost of obtaining short-term finance […] less liquid firms provide general disclosures to avoid being viewed as risky or inefficient by suppliers […]

In addition, B1 and F3 were neutral while F5 maintained that CRD is dependent on management's willingness to provide such information and not liquidity level. Based on the above, preparers' feedback represents mixed findings on the effect of liquidity on CRD practice, with three supporting positive association, three supporting negative association, and the other three reporting no association. In this regard, the preparers' feedback partly represents signalling theory in explaining CRD among listed non-financial firms in Kenya.

Fourthly, when preparers were asked about the influence of profitability on CRD practice, they provided mixed findings. For instance, the first and second interviewees (F4 and F6) stated that profitable firms have more activities which expose them to different risks. This explanation is based on the notion that high return is associated with high risk. Thus, profitable firms use risk disclosure to communicate to shareholders how the returns were obtained and the sustainability of the returns in the future. In this case, agency theory is traceable from the company's intention to reduce information asymmetry between managers and shareholders. F4 stated that:

> […] profitable firms have more activities which expose them to different risks, hence, disclosure is inevitable […] profitable firms have the resources to afford efficient risk management programs […] profitable firms focus on what they can do to sustain profits, and they are alert from a risk perspective […] they are concerned about business continuity, thus, they are sensitive to risk […].

In the same way, F6 argued that profit-making firms have the resources required for risk management programs than loss-making firms. This view is based on the signalling theory perspective that good-performing firms provide more disclosures to distinguish themselves from loss-making firms. F6 stated that:

> […] if you are profitable over time […] you have resources that can be directed towards risk disclosure programs […] profitable companies have more resources and expertise to show investors they can manage risks facing them […].

The findings are in tandem with Seta and Setyaningrum (2017), Muturi (2018) and Ibrahim et al. (2019). However, F1 and F2 provided a contrary view that profitability is negatively

associated with CRD practice. F2 argued that providing risk information when you are profitable may be viewed negatively by shareholders. Thus, profitable firms provide fewer disclosures to avoid negative perceptions. He added that managers of less profitable firms use CRD to reassure investors that the future is bright even when it is bleak. F2 commented that:

> […] profitable firms provide fewer disclosures to avoid negative perception, while less-profitable firms use disclosures to justify risk management capacity in the future […] this explains why managers give positive assurance about firm prospects even when the future is bleak […].

Equally, Saggar and Singh (2017) found a significant negative association between profitability and CRD practices in India. However, F5 and F3 held a different view that whether profitable or non-profitable, CRD is largely dependent on management's willingness to provide such information. Based on the above, preparers' feedback represents mixed findings on profitability and CRD practice, with two supporting positive association, two supporting negative association, and two no association.

Fifthly, when preparers were asked about the influence of operating risk on CRD practice, the majority supported a positive association. For instance, F1, F2 and B2 believed that operating in a volatile environment increases firms' exposure to risks. In this regard, shareholders demand more in terms of CRD to understand how the firm is managing risks. This argument is based on the agency theory perspective that CRD is used to minimise information asymmetry between shareholders and managers. This implies that operating in a volatile environment increases monitoring costs, and managers use CRD to mitigate such costs. F1 stated:

> […] firms operating in a volatile environment provide more detailed risk disclosures than firms operating in a stable environment […] investors demand more information when the operating risk is high to assure investors that the company has a robust risk management system to deal with internal and external risks […].

Likewise, B3, argued that firms operating in a volatile environment will be interested to know their financial challenges. In this sense, they will investigate more to understand issues affecting them in terms of risk than firms operating in a stable environment. The results are consistent with Ntim et al. (2013). However, F6 and F4 expressed a different view that operating risk is negatively related to CRD. F4 suggested that firms with low operating risks use CRD to signal their effectiveness in managing operating risks. His explanation supports the signalling theory perspective that low operating risk is seen as good news while the high operating risk is seen as bad news by shareholders. He stated:

> […] low operating risk is associated with success in managing operational risks […] firms with low operating risks provide better disclosures to signal their ability to manage operational risks, while firms with high operating risks will be careful when disclosing risks to avoid negative publicity by shareholders and other capital providers […].

Besides, F3 and F5 maintained that CRD is largely dependent on management willingness when guidelines are not clear. Based on the interview analysis, the majority of preparers support a positive association between operating risk and CRD among non-financial firms in Kenya. The preparers' responses represent agency theory and signalling theory in explaining CRD among listed non-financial firms in Kenya.

Next**,** when preparers were asked about the influence of firm's growth on CRD practice, some confirmed the positive association, while others reported no association. For instance, B1 and B2 believed that firm's growth is positively related to CRD. F2 added that growth increases information asymmetry between shareholders and managers; hence, CRD is necessary to manage such asymmetry. This is because firm's growth is associated with firm size, more activities, and obligations such as CRD. This suggests that high-growth firms provide more risk disclosures than firms with minimal growth. F2 stated that:

> […] I believe that firm growth is associated with firm size, hence, fast-growing firms are associated with more activities, responsibilities and obligations such as risk disclosures […] managers use risk disclosures to manage the information gap between them and shareholders […] doing so assures that the firm is properly managing challenges associated with increased growth […].

Furthermore, B3 added that firm's growth is associated with active management, increased monitoring, and consequently CRD practice. The study collaborates with the findings of Saggar and Singh (2017) and Khandelwal et al. (2020), who report a positive association between firm growth and CRD in India. Similar to the views of previous interviewees, F1 supported that firm's growth increases the quality of CRD among the listed firms in Kenya. F1 stated that:

> […] as far as I am concerned, a company recording fast growth will be concerned by areas affecting their growth […] therefore, there is a strong connection between company growth and the level of risk disclosure […].

On the contrary, F5 and F3 held the view that firm growth does not influence CRD. Nevertheless, going by the views of the majority of preparers, firm growth positively influences CRD behaviour among listed non-financial firms in Kenya. The preparers' feedback represents agency theory, stakeholder theory and legitimacy theory.

Lastly, when preparers were asked about the influence of capital expenditure on CRD practice, some confirmed support for the positive association, while others reported no association. F1, F2 and B3 argued that capital spending is associated with increased growth, and consequently firm size. This increases obligations and monitoring costs to protect shareholders' wealth. In this regard, managers provide CRD to mitigate such costs. This is consistent with agency theory which holds that CRD is seen as a solution to the agency problems between shareholders and managers. F2 commented:

> […] as we grow through capital investments, we become answerable to many stakeholders who have different information needs […] this calls for all-round disclosure […] long-term projects involve huge capital outlay and firms must demonstrate their ability to identify, assess and manage risks associated with such investments […].

The findings are in line with Albassam (2014), who argues that increased capital expenditure increases monitoring costs and CRD is part of the deal. Similarly, B2 believed that analysts use capital expenditure when estimating the future share price. In this regard, capital spending is associated with better prospects and CRD. B2 stated that:

> […] from my personal experience, analysts pay more attention to capital expenditure when estimating the share price […] high capital expenditure is associated with better returns in the future […] firms with high capital expenditure tend to disclose more to meet analysts' expectations […].

However, F5 provided a contrary view consistent with the influence of the other firm-specific factors on CRD practice. She added that:

> […] risk disclosure is largely dependent on the existing regulations and management willingness to provide such information […] however, in the absence of detailed and specialised disclosure guidelines […] managers ultimately determine the level of disclosure […].

This is consistent with Ntim et al. (2013), who found that capital expenditure is not associated with CRD practice. Similarly, Ntim and Soobaroyen (2013) found a weak relationship. Despite the mixed findings, the majority of the preparers support the view that capital expenditure influences CRD among listed non-financial firms in Kenya. The preparers' feedback represents agency theory in explaining CRD behaviour among listed non-financial firms in Kenya.

9.3.2 Board characteristics and CRD

This sub-section presents the preparers' perception of board characteristics and CRD behaviour among listed non-financial firms in Kenya. The board characteristics variables were described in terms of board size, board activity, board gender diversity, and board independence. The empirical literature provided mixed findings on the influence of board characteristics on CRD. The analysis of data shows that board characteristic is crucial in enhancing CRD practice among listed firms in Kenya. The interview analysis of each board characteristic and CRD is presented below.

First, when preparers were asked about the influence of board size on CRD among non-financial firms in Kenya, the majority of preparers reported a positive association. For instance, F1, F3 and B2 pointed out that large board increases diversity in terms of experience, expertise, etc. They added that diversity in the board room is associated with board monitoring, transparency, and accountability in reporting. Similarly, F4 argues that large boards are associated with big companies which are answerable to many stakeholders. Therefore, firms with large boards provide quality CRD than their peers to serve the needs of different stakeholders. B2 stated that:

> […] directors play a significant role in monitoring and enhancing the corporate reporting transparency […] large board is associated with diversity in the board room, quality deliberations and decisions […] diversity increases board effectiveness in monitoring and consequently improves risk disclosure […].

In the same manner, F1 suggested that a large board increases diversity in terms of skills and experience, and this enhances board effectiveness in monitoring. This is in line with Elshandidy and Neri (2015) and Mokhtar and Mellett (2013) who found a positive association between board size and CRD. Conversely, B3 argued that the board should not be too large to undermine the decision-making process. She added that sometimes large board might be an obstacle to board effectiveness. This implies that the board should not be too large or too small to compromise the decision-making process. This is because small boards are better in terms of interaction among the members in the decision-making process. She stated that:

> […] large board doesn't guarantee board effectiveness […] you can have more ideas but I am then wondering if other issues will come to play […] smaller boards are easier to manage when making decisions than big boards […] it is not obvious that large boards will enhance monitoring effectiveness […] sometimes large boards may be an obstacle to achieving effectiveness and transparency in decision making […].

F5 added that firms should strive for a balanced board, therefore, caution should be exercised when selecting boards to ensure they have the right technical background. F5 stated that:

> […] when firms are selecting boards, they should not only focus on board size, they should pay attention to skills, expertise, experience and level of knowledge which introduces diversity […] this is because a small board with balanced technical background is more effective than a big board without a technical background […].

This is in line with Allini et al. (2016) who found that board size has no significant influence on CRD practice. Notwithstanding the mixed responses, the majority of the stakeholders support the positive association between board size and the quality of CRD. These results represent the theoretical lens of agency theory, resource dependence theory and stakeholder theory.

Secondly, when preparers were asked about the influence of board independence on CRD among non-financial firms in Kenya, the majority reported a positive association. For instance, F3 highlighted the role of independent non-executive members in diffusing potential conflicts between insiders and outsiders. He added that independent non-executive members enhance board effectiveness, which is associated with improved CRD. Likewise, B2 argued that independent board members enhance board transparency in corporate reporting. He stated that:

> […] it's good to have these guys in place […] my feeling is that non-executive directors bring diversity to the decision-making process […] the more we have people in the board room looking at the company from an outside-inside perspective, the better the decision-making process and outcome […].

Similarly, F4 stated that independent non-executive members introduce checks and balances in the boardroom. In this sense, the presence of independent non-executive directors improves strategic decision-making ability through monitoring and, consequently, improves CRD. F4 stated that:

> […] my thinking is that having a higher proportion of independent non-executive directors introduces checks and balances in risk reporting […] this enhances board monitoring and transparency in risk reporting […].

This is in line with Abraham and Cox (2007), Ntim et al. (2013) and Oliveira et al. (2018) who found a positive association. Equally, F1 emphasised the importance of mixing executives with independent non-executive directors. However, F6 provided a contrary opinion that sometimes independent non-executive directors may not pay attention to the

company. This is because some non-executive directors are ceremonial and rely on the information given by executive directors. F6 stated that:

> […] in most cases, non-executive board members are ceremonial […] they may not understand the firm's risk profile […] in most cases, non-executive board members depend on what has been provided by the executive members […] they don't understand the day-to-day operations of the company and they are there to rubber-stamp […] they are brought in because of the financial resources and network they have […].

The findings concur with Domínguez and Gámez (2014) and Saggar and Singh (2017) who found no association between board independence and CRD. Despite the mixed findings, the majority of the stakeholders support the positive association between board independence and quality of CRD. Thus, board independence represents the theoretical lens of agency theory, stakeholder theory and legitimacy theory.

Thirdly**,** in terms of board gender diversity and CRD, preparers held different views. However, the majority seemed to agree that diversity is vital in enhancing board effectiveness through monitoring. For instance, F2, B2 and B3 suggested that firms with female directors disclose better risk information than firms without female directors. F2 pointed out that female directors look at things from different perspectives, which may positively enhance disclosure. F2 stated that:

> […] ladies generally look at things from multiple dimensions; economic, environmental, cultural, and social […] ladies are a bit more cautious than men and this may reflect the kind of risk disclosure mechanism they put in place […].

Equally, F4 added that female directors exhibit greater diligence in monitoring, which is associated with better oversight and transparency. Thus, female directors are associated with a rich information environment. B2 added that female directors exhibit greater diligence in monitoring than male directors, and is associated with better oversight and transparency. Hence, female directors are associated with high-quality risk disclosure. He stated that:

> […] the importance of gender diversity in the boardroom is echoed by the Kenyan constitution through the two-thirds gender rule […] previously, males dominated boardroom discussions […] currently, female representation is a top agenda meant to promote diversity and good governance practices […] therefore, female directors will add value in corporate risk reporting […].

This is in line with Ntim et al. (2013), Allini et al. (2016) and Saggar and Singh (2017) who found a positive association. However, F6 expressed a different view that female representation may not guarantee CRD quality. He stated that:

> […] from my perspective, female directors may not always enhance risk disclosure, it depends on the risk perspective of the female director […] I don't think there is a direct connection […] it's not just having more women on the board […] it's about ensuring the female directors have necessary skills, experience and actively participate in the decision-making process […] female directors should be hired based on their qualifications, not their gender, region, tribe, or religion […].

Notwithstanding the mixed responses, the majority of the stakeholders support the positive association between board gender diversity and CRD among listed firms in Kenya. Thus, board gender diversity represents the theoretical lens of agency theory, resource dependence theory and stakeholder theory.

Fourthly, in terms of board activity and CRD, preparers provided mixed findings. For instance, B1 and F1 pointed out that board meetings provide a forum for directors to communicate, make decisions, and perform monitoring and advisory duties. They added that board meetings enhance information sharing between the managers and directors, which helps to keep directors informed. This is in line with the agency theory perspective that board meetings provide a forum for information sharing, and reduce asymmetry between managers and directors. Equally, B2 argued that active boards are more likely to enforce monitoring and control, which enhances CRD transparency. In this regard, active boards are more likely to perform their duties in line with the interests of stakeholders. This is consistent with Banghøj and Plenborg (2008) and Allegrini and Greco (2013). He stated that:

> […] frequent board meetings enhance effective communication between directors, it facilitates good deliberations and decision-making because directors have enough time to brainstorm ideas and discuss issues affecting the firm […] this enables directors to perform their duties in line with stakeholders' interests such as ensuring corporate transparency in the annual report […].

Conversely, F5 and F2 indicated that the frequency of board meetings may not be associated with CRD. In this case, management effectiveness is determined by the quality of discussions but not the number of meetings in a year. Thus, companies should strive for effective meetings that enhance supervision. Similarly, F6 argued that directors are sometimes tempted to pursue personal gains through having frequent meetings in a year, which guarantees them good allowances. In this case, frequent meetings in a year may not guarantee board effectiveness in monitoring. F6 explained:

> […] I think it's not about meeting frequently in a year […] what matters is the agenda and content […] to what extent is the board working with audit departments […] who is influential because if the opinion leaders are not experts then there is a danger […]

> who is the chairman? […] does he/she have enough knowledge about the firm's risk profile? […] does he/she consider the input of the other board members in the decision-making process? […] board meetings should be properly guided by the company policy to ensure directors don't use them to pursue their gains, such as good allowances […].

9.3.3 Ownership structure and CRD

This sub-section presents the preparers' perceptions of ownership structure and CRD behaviour among listed non-financial firms in Kenya. The empirical literature suggested that attitudes towards CRD vary across the shareholders. The ownership structure variables were described in terms of retail ownership, managerial ownership, foreign ownership, block ownership, and government ownership. In general, preparers acknowledged the importance of ownership structure as a critical governance mechanism to enhance CRD practice in Kenya. The interview analysis of each ownership dimension and CRD is presented below.

First, when preparers' were asked about the influence of retail ownership on CRD among non-financial firms in Kenya, the majority provided no association. For instance, F1 pointed out that retail investors are less informed than institutional investors. In the same manner, F5 added that retail investors are less sophisticated and have fewer skills in acquiring and processing information compared to institutional investors. Similarly, F3 suggested that retail investors have no power to influence corporate reporting because they are considered minority investors. In this sense, retail ownership does not influence CRD. F2 added that retail investors mostly rely on technical rather than fundamental analysis to make investment decisions. Focusing on short-term share price movement may not provide sufficient information about the company's outlook. He stated:

> […] retail investors are considered irrational, less informed than institutional investors […] they make decisions based on short-term share price movement with less focus on company strong fundamentals […] Additionally, most of their decisions are driven by bias, fear and emotions, therefore, they don't influence disclosure […].

In the same vein, F4 argued that retail investors have insufficient information about stocks, unlike institutional investors. Therefore, they have limited power to influence CRD among non-financial firms in Kenya. F4 stated that:

> […] disclosure requirements will be more when a company is owned by institutional investors […] institutional investors will demand high level of disclosure […] company will be pressured by institutional firms to provide elaborate risk information as opposed to retail investors […].

Contrary, B1 expressed a different opinion that retail ownership increases conflict between majority and minority shareholders. This calls for more monitoring and disclosure to minimise agency problems.

Secondly, in terms of managerial ownership and CRD, the majority of preparers agreed that managerial ownership negatively influences CRD. For instance, F6 argued that managerial ownership enhances monitoring activities, resulting in improved CRD. F3 added that managerial ownership provides an opportunity for managers to align their interests with shareholders. If CRD increases shareholders' value, then managers will provide such information in the annual report. The positive association between CRD and managerial ownership is in line with Warfield et al. (1995) and Nagar et al. (2003). In the same vein, F3 stated that:

> […] it's in their interest for the company to do well, one way is through the share price, and share price is sensitive to information […] if they know stakeholders expect more information, they will disclose more […] when managers are part of the ownership, the disclosure level will be very high […] when managers have a stake, they will voluntarily disclose whatever can affect their investments […].

Contrary to the previous preparers' views, B1 suggested that managerial ownership may not necessarily lead to the alignment of shareholder interest, because of their opportunistic behaviour leading to less useful disclosures. Similarly, F1, F2 and F5 pointed out that managerial ownership weakens board independence, minimising its effectiveness in monitoring, and consequently in risk reporting. F1 pointed out that:

> […] from my perspective, managerial ownership weakens board independence in monitoring and controlling activities […] this reduces the need for better risk disclosure […].

Equally, B2 added that managerial ownership is associated with low managerial turnover and reduced efficiency, this association reduces the need for CRD. This is in line with Ruland et al. (1990), Sepasi et al. (2016) and Eng and Mak (2003). Despite the opposing views, most preparers seem to support the negative effect of managerial ownership on CRD practice among listed non-financial firms in Kenya.

Thirdly, in terms of foreign ownership and CRD, the majority of preparers agreed that managerial ownership positively influences CRD. For example, FI, F3 and F2 suggested that foreigners demand more information about a company to build trust. Managers respond by bridging the information gap between foreigners and the firms by providing more risk

disclosures. This is in line with Muttakin and Subramaniam (2015) and Grassa et al. (2020) who found that foreign ownership positively affects CRD. In the same spirit, F4 maintained that foreign ownership is associated with greater company monitoring through good governance, which helps to minimise potential conflicts between the insiders (managers) and outsiders (foreigners). F4 explained that:

> […] foreigners are not aware of the company's operating environment […] foreigners will demand a high level of disclosure […] risk disclosure enables foreign investors to understand the business model, potential risks and measures put in place to manage those risks […] this minimises the asymmetry between managers and foreign investors […].

A similar view was held by B3, who suggested that firms seek to win foreigners as powerful stakeholders through better disclosure. Thus, we expect firms with foreign ownership to provide better CRD than firms without foreign ownership. In this sense, the majority of the stakeholders support the positive association between foreign ownership and CRD. On the contrary, F5 and F6 stated that managers will communicate good news and hide bad news to avoid being viewed as risky by foreigners.

Fourthly, in terms of block ownership and CRD, the majority of preparers found a negative association. For instance, F4 stated that block ownership is inversely related to good governance. F4 argued that block investors have influential power, which they use at the expense of small investors. In the same vein, F3 suggested that block investors are influential in the appointment of the directors, which may interfere with their independence. If the board's independence is compromised, it weakens monitoring and, consequently, CRD. In this regard, firms with block ownership provide less information than firms with dispersed ownership. F3 stated that:

> […] block ownership interferes with board independence which reduces board monitoring, control, and risk disclosure […] firms with block shareholders tend to provide less risk information in the annual report than firms with dispersed ownership […].

In the same way, F1 stated that block ownership reduces the separation between ownership and control. This suggests that block investors do not depend on disclosures to monitor managers because they have access to all the information internally. Similarly, F2 suggested that block investors have access to private information and would prefer to maintain their informational advantage by discouraging more disclosures. F2 stated that:

> […] I would say that block investors may not be interested in risk disclosure because they already have access to private information and they may want to maintain their information advantage […] when you have a few investors concentrated at the top, it's like a club and the level of disclosure is not much […].

The negative association between block ownership and CRD practice is in line with Ntim et al. (2013). Contrary to the interviewees above, F6 argued that block shareholding is positively associated with good governance. This is consistent with Bufarwa et al. (2020) among the listed firms in the UK. F6 added that block shareholders influence the appointment of competent directors to run the firm on their behalf. These directors endeavour to protect the firm's reputation through strengthening governance.

Fifthly, in terms of government ownership and CRD, the majority of the preparers found a positive association. The first interviewee, F1, stated that risk disclosure in Kenya is mandated through standards, regulations, and capital markets listing laws. Based on this argument, government-owned firms will strive to comply with these standards and regulations to win the government as a powerful shareholder. B1 added that government uses these institutions to push any reporting agenda by strengthening their governance. B1 commented:

> […] we expect government-owned institutions to lead by example in complying with laws, and regulations which enhance good governance, resulting in improved risk disclosure […].

Likewise, B2 suggests that corporate reporting is a costly affair, and companies need resources to provide quality risk information. In this sense, government institutions have more resources and expertise to provide quality information than private-owned institutions. Therefore, government-owned firms will provide better risk information than private-owned firms. This is in line with Eng and Mak (2003) and Ntim et al. (2012) who found a positive association. Similarly, B2 suggested that government ownership is associated with stability, which increases investor confidence. This is because government-owned institutions are subject to more monitoring and control through provisions of codes and other reporting laws. B2 stated:

> […] government institutions are more stable because of extensive monitoring and control than private-owned firms, which enhance risk disclosure […] additionally, government-owned firms have guaranteed access to a large pool of capital in case of a crisis the government can always bail them out […].

Furthermore, B1 suggested that high government ownership reduces personal interest and ensures the firm is run in the interest of stakeholders. F2 added that government will always protect the public interest.

> […] I expect the government to be on the stakeholder's side to ensure their interests are upheld […] thus, state-owned corporations will ensure compliance with Capital Market Codes and other listing laws such as transparency in risk disclosure […].

However, F5 and F4 provided a contrary view that high government ownership is negatively related to CRD, consistent with Dam and Scholtens (2012) and Allini et al. (2016). F5 argues that high government ownership is characterised by government red tape, slow decision-making process and political interference, resulting in weak corporate governance. This makes communication difficult, such as CRD. F5 explained:

> […] government ownership is associated with bureaucracy which slows decision-making processes and productivity […] these institutions are also characterised by weak governance because of political interference and consequently, reduced monitoring and less disclosure […].

9.4 Stakeholders' perception of the meaning of HQCRD

This section evaluates the stakeholders' understanding of the meaning of high-quality CRD and how it can be achieved in Kenya. The findings indicate that the HQCRD construct is not understood in equal dimensions among CRD stakeholders, confirming that HQCRD is complex and multi-dimensional. For instance, F2 stated that:

> […] HQCRD is achieved when firms provide reliable, accurate risk information in the annual report to serve the needs of stakeholders […] which captures the risks arising from the business activities, models and measures put in place to mitigate their impact […].

Likewise, F4 stated that HQCRD occurs when companies provide complete, accurate, reliable, balanced, and meaningful risk information as per the existing risk reporting framework. After probing further into the framework, he added that IFRS and the Kenya Companies Act provide for CRD in the annual report. Nevertheless, they have not provided practitioners with a standard definition of CRD and how such disclosure can be made to achieve high quality. In addition, F5 pointed out that the current CRD framework is not sufficient to support robust risk disclosure in the annual report. Thus, companies are left to decide for themselves on the meaning, scope, nature, extent, and quality of CRD. This could shed some light on why some companies provide more disclosures than others. F4 stated:

> […] HQCRD occurs when companies disclose complete, accurate, reliable, meaningful risk information without bias in line with accounting standards, regulations, and legislation […].

Moreover, R1 said that HQCRD occurs when companies provide risks in the annual report in line with the CRD guidelines. However, the guidelines are still evolving to reflect the best practices in risk reporting. Therefore, attempts are ongoing to improve the current disclosure environment in Kenya. R1 stated:

> […] from the regulation side, quality reporting occurs when listed firms disclose risks as per the guidelines […] however, these guidelines are ever-changing owing to the dynamic business environment […] to respond to stakeholder needs, we have to continuously improve the guidelines to reflect best practice in risk reporting […].

Equally, R2 emphasised the importance of regulators in enhancing CRD through good governance practices among listed firms. He echoed that the existing Code of Corporate Governance at least provides a starting point for improving CRD quality in Kenya. In addition, A1 and A2 were quick to point out that having a guideline is not a holy grail because such guidelines are constantly changing, and so is the concept of quality. This suggests that quality is dynamic and can only be attained at a point in time. Thus, high-quality CRD occurs at a specific point when the disclosed information is in line with particular guidelines and literature.

Furthermore, EA1 stated that quality disclosure occurs when the reported information is consistent with best practice and meets some useful qualitative attributes. When asked to comment on the meaning of useful information, he explained using the attributes relevant, transparent, comprehensive, simple, timely account of risks facing the company and the manager's plans to mitigate the impacts. Based on the analysis of the responses, the meaning of HQCRD is not shared uniformly among the CRD stakeholders. The stakeholders have used the following terms to define quality as disclosing accurate, reliable, relevant, complete, comprehensive, simple, transparent, meaningful, and timely risk information. Having refined the terms suggested by stakeholders, the study concludes that risk information should account for risks arising from business activities and be presented as per best practice. In this regard, risk information is considered to be of high quality if:

> It is in full compliance with high-quality risk disclosure guidelines, has received a good assurance report, provides an account of risks arising from the business activities, captures strategies put in place to manage the risks, achieves a rating of 100% in line with standard risk reporting guidelines or achieves a rating of 100% in line with recognised national guidelines and captures recent literature.

9.5 Perceptions of stakeholders on the level of HQCRD

In response to the stakeholder's perception of the level of HQCRD, first, the majority of the stakeholders agreed that the quality of CRD is low among listed non-financial firms in Kenya. Secondly, they acknowledged the improvement in the quality of CRD after the implementation of the Kenya Companies Act of 2015. However, there is still more room for improvement. F5 attributed the low CRD quality to the lack of specialised guidelines on risk and the managerial discretion in determining the depth and breadth of risk information in the annual report. F5 stated that:

> […] we are exposed to many risks but the management always decides on what to report, we normally have risk disclosure targets every year […].

In the same spirit, F1 suggested that companies are reluctant to provide negative information to the shareholders. This implies that they focus more on positive than negative risk information. The findings are consistent with Marzouk (2016) and Ntim et al. (2013). F1 stated that:

> […] we are reluctant to disclose negative information […] most of the time negative information is provided in a positive way to prevent the information from being perceived as bad news […] negative information about us is sensitive to the capital market participants[…].

F2 argued that the annual report presents what has happened with minimal regard for the future. This suggests they focus more on past and current than future-looking information. The findings are in line with Linsey and Shrives (2006) and Marzouk (2016) in the UK and Egypt, respectively. F2 stated:

> […] the future is uncertain and it requires the use of proper estimates […] reporting future-looking risk information is sensitive because most of our estimates are based on subjective judgment without proper sensitivity analysis […] we are more comfortable communicating about the past and current situation […].

F2 added that providing reliable risk estimates requires adequate data and experts to quantify risks. This suggests risk quantification might be costly to the organisation and could explain why companies provide more qualitative than quantitative information. Furthermore, EA2 argued that risk information is not provided on a timely basis for people to make informed decisions. EA2 stated:

> […] I think fundamental information is not always provided on a timely basis to users to make informed decisions […] it could be shown by the way interventions to mitigate risks tend to come in too late to provide help to firms in distress […] some

> organisations look at risk as a tick box or something good to have instead of something essential […].

This is in line with F6 who stated that sometimes companies provide risk disclosures that are not linked to the other parts of the annual report. For instance, business strategy, business models, prospects of the entity, etc. In addition, EA4 pointed out that the risk information disclosed is minimal and hidden which forces professionals to dig deeper. This suggests that companies hide risk information by providing generic disclosures. She stated that:

> […] risk disclosure is not of high quality in Kenya […] the information provided to the users is minimal or hidden and this calls for the relevant professionals in various fields and markets to dig deep to get all the information […] this will help to minimise the risks to acceptable levels and the users will make wise decisions for investment. Professional bodies should generally uphold the public interest […].

9.6 Significance of proposed CRD framework

This section presents stakeholders' views on the significance of the proposed framework in achieving HQCRD in Kenya. The framework consists of 62 disclosure items and 5 qualitative attributes of risk information that would help companies achieve high-quality CRD. The disclosure items are categorised into subcategories, namely financial, business, and strategic risk. In addition, the qualitative attributes include time horizon, tone of disclosure, type of disclosure, specificity, and linkage. The findings suggest acceptance of the risk disclosure items and qualitative attributes among the stakeholders in Kenya. Therefore, the weighted scoring system suggested in Chapter seven to evaluate HQCRD in Kenya is supported. This implies that the proposed framework can be used as a starting point in assessing the quality of CRD among listed non-financial firms in Kenya.

Moreover, stakeholders suggested some additional items and attributes that would contribute to risk helpful information. The attributes suggested include relevant, accurate, reliable, complete, comprehensive, timely, simple, meaningful, transparent, and consistent information in the annual report. Furthermore, the disclosure items suggested include other financial risks, project risks, knowledge and information management, seasonal risks, and technological environment risks as presented in Table 9.2.

Table 9.2: Suggested additional risk disclosure items

Disclosure Category	Disclosure sub-category	Additional elements
Financial risks	Financial risks	risks emanating from financial losses, wasteful expenditure, budget allocations, financial statement integrity, risk of bankruptcy, business portfolio risk, revenue forecast risk, and profit warning risk.
Business risks	Project risks	risks inherent to particular projects which should be identified for all the major projects, covering the whole lifecycle and long-term projects.
Strategic risks	Knowledge & Information management	risks arising from the firm's management of knowledge and information. The following is considered in identifying the risks: availability of information, stability of the information, integrity of information, relevance of information, retention, and safeguarding of information data theft.
Strategic risks	Seasonal risks	risks relating to the loss during certain times of the year. It generally only affects businesses that only operate during certain times of the year, such as a decrease in demand during certain times of the year.
Strategic risks	Technological environment risks	risks emanating from the effects of advancement and changes in technology.

9.7 Comparison between quantitative and qualitative analysis

The study adopted descriptive and explanatory sequential design to achieve triangulation. The results of qualitative analysis improve the explanation of quantitative findings (Chapter eight). The first objective was to establish the quality of CRD among the listed non-financial companies in Kenya. Results of the quantitative analysis indicated that, first, the quality of CRD is low in both weighted and unweighted CRD scores. The findings are in line with Tauringana and Chithambo (2016), Lopes and Rodrigues (2007) and Ntim et al. (2013). Secondly, the findings showed that CRD quality improved after the enactment of the Kenya Companies Act of 2015 (2015 - 2019). This is in line with Elamer et al. (2019a) who found a positive influence of Basel regulation on the level of CRD in MENA countries. In the same way, Miihkinen (2012) found that the national disclosure standard had a positive influence on CRD quality among Finnish firms. Thirdly, risk disclosures in Kenya are mainly past, positive, qualitative, general, and not link-related information. This is consistent with stakeholders' view that the quality of CRD is low among listed non-financial firms in Kenya.

In the same spirit, stakeholders pointed out that the Kenya Companies Act of 2015 had enhanced CRD compliance under the director's report. Equally, they attributed variation in CRD to the absence of a clear framework on CRD. They also suggested that for listed firms to enhance uniformity in CRD, there is a need for detailed and specialised regulation to provide clear guidelines just like in financial reporting and the US GAAP. Moreover, the qualitative analysis provided general acceptance of the CRD items and qualitative attributes among the stakeholders in Kenya. The acceptance of the suggested framework will help stakeholders to differentiate between companies that disclose high-quality information from companies providing low-quality information. Likewise, it will help to assess and distinguish between risk information that achieves high quality and one that does not. This implies that the weighted CRD score suggested in Chapter seven to evaluate HQCRD in Kenya is supported.

The second objective was to establish the association between the quality of CRD and corporate characteristics among the sampled firms in Kenya. The independent variables were categorised into firm-specific, board characteristics, and ownership structure. The quantitative analysis confirmed several variables based on the two scoring systems. In conclusion, the qualitative analysis provided more evidence on the influence of independent

variables on CRD quality. The following table shows the comparison of significance levels in quantitative results and qualitative results.

Table 9.3: Comparison of quantitative and qualitative results

Independent Variables	Hypotheses Testing	Significance		
		Weighted	**Unweighted**	**Interviews**
Firm-specific factors				
Firm size	1	**Supported**	**Supported**	**supported**
Leverage	2	**Supported**	**Supported**	**supported**
Profitability	3	not supported	**Supported**	Mixed
Liquidity	4	not supported	not supported	Mixed
Firm growth	5	**Supported**	**Supported**	**supported**
Capital Expenditure	6	not supported	not supported	**supported**
Operating Risk	7	**Supported**	**Supported**	**supported**
Board characteristics				
Board Activity	8	**Supported**	not supported	Mixed
Board Size	9	not supported	not supported	**supported**
Board Gender Diversity	10	not supported	**Supported**	**supported**
Board Independence	11	**Supported**	not supported	**supported**
Ownership structure				
Managerial Ownership	12	not supported	not supported	**supported**
Retail Ownership	13	not supported	not supported	not supported
Foreign Ownership	14	**Supported**	**Supported**	**supported**
Block Ownership	15	**Supported**	**Supported**	**supported**
Government Ownership	16	not supported	not supported	**supported**

The results of the quantitative analysis indicated that firm size, leverage, firm growth, profitability, operating risk, board activity, board gender diversity, board independence, foreign ownership, and block ownership were determinants of CRD quality. Six out of the ten variables were identified in both weighted and unweighted CRD scores, and these are firm size, leverage, firms growth, operating risk, foreign ownership, and block ownership. The quantitative analysis failed to confirm the following independent variables: liquidity, capital expenditure, board size, managerial ownership, retail ownership, and government ownership.

Then, the qualitative analysis indicated that firm size, firm growth, board gender diversity, board independence, foreign ownership, block ownership, and government ownership influence CRD. The qualitative findings reported mixed findings on leverage, profitability, and board size. In addition, qualitative findings failed to confirm the effect of retail ownership on CRD. In conclusion, the results of quantitative analysis and qualitative analysis provide mixed findings on the status of quality of CRD and corporate determinants. In general, some results of qualitative analysis consistently had support for the hypotheses, similar to quantitative analysis while others failed to support the hypotheses. A possible explanation for the difference in findings may be attributed to the background of the

respondents (Tauringana & Chithambo, 2016). In the same way, Alatas et al. (2006) state that individual characteristics influence individual perceptions, such as religion (Treisman, 2000), age (Torgler & Valev, 2010) and gender (Alatas et al., 2006).

9.8 Chapter summary

The chapter responds to the fourth and fifth empirical research questions. The fourth research question was: What are the preparers' perceptions of the determinants of CRD? The fifth research question focused on the stakeholders' understanding of the meaning of CRD among listed non-financial firms in Kenya. The purpose of the qualitative analysis was to engage the internal and external stakeholders on determinants of CRD analysed in chapter eight. The results of the qualitative analysis indicated that the quality of CRD is low among listed non-financial firms in Kenya. In addition, CRD in Kenya is mainly past, positive, qualitative, general, and not link-related information.

Regarding the determinants of the quality of CRD, some factors identified in the qualitative analysis differ from those identified in the quantitative analysis. For instance, firm size, leverage, firm growth, profitability, operating risk, board activity, board gender diversity, board independence, foreign ownership, and block ownership were identified as the quality of CRD determinants. However, the qualitative analysis indicated that firm size, firm growth, board gender diversity, board independence, foreign ownership, block ownership, and government ownership influence CRD. A possible explanation in literature is attributed to the background of the respondents (Tauringana & Chithambo, 2016). Similarly, Alatas et al. (2006) state that individual characteristics, such as religion (Treisman, 2000), age (Torgler & Valev, 2010), and gender (Alatas et al., 2006) influence individual perceptions.

CHAPTER TEN
CONCLUSION, CONTRIBUTIONS AND SUGGESTIONS FOR FURTHER RESEARCH

10.1 Introduction

This chapter presents the established construct "HQCRD"; the determinants of quality of CRD; the moderating effect of the Kenya Companies Act of 2015 on the determinants of CRD; preparers' reason for the practice of CRD among listed non-financial firms in Kenya, and stakeholders' understanding of the meaning of CRD. The chapter is organised as follows: Section 10.1 presents the introduction, while Section 10.2 is summary of research objectives, and Section 10.3 is the research methods. Section 10.4 is research conclusion; Section 10.5 is on contribution to knowledge, while Section 10.6 focuses on implications of research findings and conclusions, and, lastly, Section 10.7 presents limitations as well as suggestions for further research.

10.2 Research objectives

The study sought to establish the meaning of the construct "HQCRD" and its association with corporate characteristics among NSE listed non-financial firms in Kenya. This objective was divided into five specific research objectives. The first was assessing the quality of CRD among NSE listed non-financial firms in Kenya, to see whether HQCRD is achieved by listed non-financial firms in Kenya. Secondly, the study sought to establish the association between the quality of CRD and corporate characteristics, to test the applicability of multi-theoretical framework in explaining CRD behaviour in Kenya. Thirdly, the study set out to establish the moderating effect of the Kenya Companies Act of 2015 on the relationship between quality of CRD and corporate characteristics. The objective offers an understanding of the regulatory influence on CRD determinants among listed non-financial firms in Kenya. The fourth objective was to establish preparers' reasons for the practice of CRD in Kenya, to understand how the preparers of CRD can be assisted to achieve HQCRD. Lastly, the study sought to establish stakeholders' understanding of HQCRD in Kenya, so as to assist policymakers and other guideline setters in understanding the needs of capital market participants.

10.3 Research methods

The study adopted both descriptive and explanatory sequential design to achieve the research objectives. The study employed both objectivism and subjectivism ontological assumptions but leaned more on objectivism in line with quantitative research design. Similarly, post-positivism and social constructivism paradigms were employed but leaned more on post-positivism in line with qualitative research design. The quantitative research design targeted 51 non-financial firms listed on the NSE over twelve years from 2008-2019. The final sample comprised 39 NSE listed non-financial firms after excluding suspended and delisted firms. Quantitative analysis was conducted at three levels, namely descriptive, bivariate and multivariate analysis. Descriptive statistics were conducted on the weighted and unweighted measures to assess the quality of CRD among non-financial firms in Kenya. In addition, bivariate and multivariate analyses were performed to assess the relationship between the quality of CRD scores and corporate characteristics. In addition, multivariate analysis was used to assess the moderating effect of the Kenya Companies Act of 2015 on the relationship between quality of CRD and corporate characteristics among NSE listed non-financial firms in Kenya. Regarding statistical analysis, the study used EVIEWS statistical package 12. On the other hand, qualitative design targeted preparers and users of the annual report. The qualitative data was collected through semi-structured interviews. The interviews sought the opinions of preparers on factors influencing CRD in Kenya to interpret and triangulate the findings of quantitative analysis. Moreover, the interviews sought to establish the opinion of the stakeholders on the meaning of HQCRD. The interview responses were analysed thematically using Microsoft word office.

10.4 Research conclusions

The research conclusions are presented as follows: first, the meaning of the construct "High-Quality Corporate Risk Disclosure" in response to research question 1*;* secondly, the quality of CRD among listed non-financial firms in Kenya in response to research question 2: thirdly, the association between the quality of CRD and corporate characteristics among listed non-financial firms in Kenya in response to research question 3; fourthly, moderating effect of the Kenya Companies Act of 2015 on CRD determinants among listed non-financial firms in Kenya in response to research question 4*;* fifthly, the applicability of multi-theoretical lens to explain the quality of CRD among listed non-financial firms in Kenya in response to research question 5; then the preparers' reasons for CRD among listed non-financial firms in Kenya in response to research

question 6, and, lastly, the stakeholders' perception of the meaning of high-quality CRD among listed non-financial firms in Kenya in response to research question 7.

10.4.1 Meaning of High-quality CRD

This objective sought to establish the meaning of the construct "HQCRD" among stakeholders. The extant literature and CRD guidelines were reviewed to establish the meaning of "HQCRD". In doing so, the study proposed a tentative definition of "HQCRD" similar to Wangombe (2013). In addition, stakeholders were engaged through semi-structured interviews to improve the suggested definition. It can be concluded that there is no globally accepted standard on CRD akin to IFRS and the US GAAP. The existing guidelines are often ambiguous, and this hinders accurate interpretation. Equally, the guidelines have not provided a universal definition of quality of CRD. They have taken CRD quality to be risk information that meets a set of attributes. However, these attributes are not consistent across the guidelines.

Moreover, there is no universally accepted concept of risk among researchers. Instead, they use different terms, namely risk-related narratives, risk management disclosures, risk disclosure, voluntary/mandatory risk-related disclosures including narratives, tables and graphs. The inconsistency around the conceptualisation of risk contributes to lack of clarity. Likewise, the majority of researchers do not define risk; they assume that the reader is aware. Failure to define risk brings confusion to the readers. Besides, those who define risk have adopted two approaches, namely one-side definition and two-side definition (Ibrahim & Hussainey, 2019). The present study operationalised the construct "HQCRD" using two-side definition consistent with Elamer et al. (2019a) and Grassa et al. (2020). This definition is considered comprehensive enough to capture the multi-dimensional nature of risk and the multi-theoretical framework proposed (Chapter four). The two scoring systems (weighted and unweighted) were used to measure the diverse aspects of CRD (Chapter seven).

Furthermore, the interview analysis concluded that HQCRD is a dynamic and multi-dimensional construct whose meaning is not understood in equal dimensions by the stakeholders (preparers and users). This shows HQCRD is a function of multiple disclosure items and attributes that are not constant over time. Some of these items and attributes are included in the proposed framework while others are suggested by stakeholders. The proposed definition could be considered the first step toward improving HQCRD. However, consideration needs to be made to expand the disclosure elements to capture recent reporting

practices. In this regard, the present study refined the proposed definition (Chapter two) using the terms suggested by stakeholders. The study concludes that risk information is considered to be "High-Quality CRD" if:

> It is in full compliance with high-quality risk disclosure guidelines, has received a good assurance report, provides an account of risks arising from the business activities, captures strategies put in place to manage the risks, achieves a rating of 100% in line with standard risk reporting guidelines or achieves a rating of 100% in line with recognised national guidelines, and captures recent literature.

10.4.2 Quality of CRD among listed non-financial firms in Kenya

This objective sought to assess the quality of CRD among listed non-financial firms in Kenya. The disclosure indices (weighted and unweighted systems) were developed to operationalise the proposed definition of "HQCRD" (chapter 2). The weighted scoring system is based on previous studies and it uses different weights for various disclosure items, unlike the unweighted system. In addition, the weighted system has been developed following stakeholder engagement, making it superior to the unweighted scoring system. The association between the two scoring systems suggest that they measured different aspects of "HQCRD". Based on the proposed definition of HQCRD, none of the sampled firms achieved HQCRD. As well, there is a wide disparity in the quality of CRD among the firms and across the indices, implying different considerations by managers when producing CRD in Kenya.

Moreover, the quality of CRD has improved gradually over the study period (2008-2019), with a drastic increase from 2015 onwards, owing to the regulatory influence (release of Kenya Companies Act of 2015). Nevertheless, the apparent lack of specialised and detailed guidelines seems to be contributing to lower CRD quality. Stakeholders also agreed that the quality of CRD is low among listed non-financial firms in Kenya. This confirms previous research on CRD quality among listed firms in South Africa (Ntim et al., 2013) and Tunisia (Salem et al., 2019) respectively. There is need for regulators to develop an informed CRD guideline that encompasses a broad spectrum of items and quality dimensions to achieve HQCRD. This will help to satisfy the need of stakeholders and allow appropriate assessment of the firm risk profile. The dispersed and low-quality CRD suggest that CRD in Kenya is still at the nascent stage, but also that there are factors influencing firms to achieve a given level.

10.4.3 Association between the quality of CRD and corporate characteristics

This objective sought to establish the association between the quality of CRD and corporate characteristics among listed non-financial firms in Kenya. The corporate characteristics were firm-specific factors, board characteristics and ownership structure (Chapter 5). The association was tested using bivariate and multivariate analyses (Chapter 8). Some variables were confirmed in both weighted and unweighted systems, while others were confirmed in one of the indices and not the other. Confirmation of different sets of factors in the same setting and period reinforces the argument that the two indices are measuring different constructs of CRD quality.

Out of 16 corporate characteristics, 6 variables were accepted in both weighted and unweighted scoring systems, namely firm size, leverage, firm growth, operating risk, foreign ownership, and block ownership. This supports the argument that CRD is a multifaceted term that is explained by a multiplicity of factors. The accepted factors represent the multi-theoretical approach consisting of agency theory (firm size, leverage, firm growth, operating risk, foreign ownership, block ownership), stakeholder theory (firm size, firm growth), signalling theory (firm size, operating risk), resource dependence theory (firm size, block ownership, foreign ownership), legitimacy theory (firm size, firm growth), and institutional theory (foreign ownership). Other factors confirmed in one and not the other scoring system include profitability (weighted system), board independence (weighted), board activity (weighted system) and board gender diversity (unweighted system). If such confirmation is accepted, then it reinforces the argument for a multi-theoretical approach.

In addition, 6 variables were not confirmed by the two scoring systems, and these are liquidity, capital expenditure, board size, managerial ownership, retail ownership, and government ownership. This could be partly attributed to sample size, the number of firms included in the sample is relatively lower compared to other studies (Mokhtar & Mellett, 2013; Elamer et al., 2019a; Grassa et al., 2020; Saggar et al., 2021), meaning and measurement of quality of CRD, the number of disclosure items and attributes included in the indexes is different from other studies (Tauringana & Chithambo, 2016; Salem et al., 2019; Shivaani et al., 2019), and different statistical methodologies. The study adopted the mixed-methods approach, similar to Tauringana and Chithambo (2016), unlike other studies on CRD (Elshandidy et al., 2018). Nevertheless, the findings are consistent with prior literature, such as Elzahar and Hussainey (2012), Mokhtar and Mellett (2013), Muturi (2018) and Elghaffar

Abotalib and Khalil (2019) who found no association between liquidity and corporate disclosure. The implication is that liquidity does not influence quality of CRD in Kenya, thus signalling that the theory is invalidated. The reason behind this may be that listed firms in Kenya are better off managing liquidity than engaging in quality of CRD. It could also be that liquidity providers do not demand high-quality CRD. Contrary, Elshandidy et al. (2011), Elamer et al. (2019a) and Elamer et al. (2019b) found a positive association, while Wallace et al. (1994) found a negative association. This confirms the association between liquidity and CRD is mixed.

Similarly, Ntim et al. (2013) and Albassam (2014) reported no association between capital expenditure and corporate disclosure, consistent with the present study. The implication is that capital expenditure does not influence quality of CRD in Kenya; thus, agency theory is invalidated. The reason behind this may be that listed firms in Kenya are better off managing capital projects than engaging in CRD quality. However, Ntim and Soobaroyen (2013) found a relationship between corporate disclosures and capital investment. This confirms that the association between capital expenditure and CRD is not consistent.

In the same vein, Elzahar and Hussainey (2012) and Allini et al. (2016) found no association between board size and CRD consistent with the present study. This negates the use of agency theory, resource dependence theory and legitimacy theory to explain the association between board size and CRD behaviour. The implication is that board size does not influence quality of CRD in Kenya. However, Elshandidy and Neri (2015), Mokhtar and Mellett (2013), Ntim et al. (2013) and Saggar and Singh (2017) found a positive association between board size and CRD, while Guest (2009) found a negative association. This confirms that the association between board size and CRD is not consistent.

In addition, Kamaruzaman et al. (2019) report no significant relationship between managerial ownership and CRD, which is consistent with the present study. This negates the use of agency theory to explain the association between managerial ownership and CRD behaviour. The implication is that managers have insider information about the firm and do not demand high-quality CRD. However, Akhtaruddin and Haron (2010), Salem et al. (2019), Eng and Mak (2003) and Htay et al. (2011) found a negative relationship, whilst Chakroun and Hussainey (2014) and Albassam (2014) report a positive association. This confirms that the association between managerial ownership and CRD is not consistent.

In the same spirit, Ntim et al. (2013) alluded that unlike institutional investors, retail investors have no power to influence CRD, which is consistent with the present study. The implication is that retail investors do not demand high-quality CRD in Kenya; thus, agency theory is invalidated. Furthermore, Elshandidy et al. (2018) and Salem et al. (2019) report no association between state ownership and CRD. This is consistent with the present study. The implication is that state ownership does not influence quality of CRD in Kenya; thus, agency theory, resource dependence theory, stakeholder theory and institutional theory are invalidated. However, Ntim et al. (2013) and Elamer et al. (2019a) found that government ownership positively affects CRD, while Dam and Scholtens (2012) and Allini et al. (2016) found that government ownership negatively influences CRD.

10.4.4 Moderating effect of CDG on corporate determinants and quality of CRD

This objective sought to establish the moderating effect of the Kenya Companies Act of 2015 on CRD determinants. Regression analysis with a moderator variable (CDG) was introduced in the model to determine the effect of the guideline (Chapter 8). The quantitative analysis shows that some factors were moderated in both weighted and unweighted systems, while others were moderated in one of the indices and not the other, confirming that the legislation impacts quality of CRD (weighted and unweighted) in different ways. Out of 16 hypothesised corporate characteristics, 6 variables were moderated in both weighted and unweighted scoring systems, namely firm size, leverage, firm growth, operating risk, foreign ownership, and block ownership. This confirms that regulatory actions are useful in shaping CRD among the listed non-financial firms in Kenya.

More specifically, the legislation impairs firm size; the strength of firm size to exert a positive impact on CRD is weakened. The implication is that legitimacy theory, agency theory, resource dependence theory and stakeholder theory proposition that firm size influences CRD works better if there is no legislation. Similarly, legislation impairs block ownership; the strength of block ownership to exert a negative impact on CRD is weakened. The implication is that agency theory and resource dependence theory proposition that block ownership influences CRD works better if there is no legislation. In addition, legislation completely neutralised board activity; the strength of board activity to exert a positive impact on CRD is lost. Thus, the agency theory proposition that board activity influences CRD works better if there is no legislation.

However, the legislation strengthens leverage: the strength of leverage to exert a positive impact on CRD is increased. This suggests that agency theory and signalling theory proposition that leverage influences CRD improves with legislation. Furthermore, the legislation strengthens operating risk; the strength of operating risk to exert a positive impact on CRD is increased. Thus, agency theory and signalling theory proposition that operating risk influences CRD improves with legislation. In addition, the legislation strengthens foreign ownership; the strength of foreign ownership to exert a positive impact on CRD is increased. Therefore, agency theory, resource dependence theory and institutional theory proposition that foreign ownership influences CRD works better with legislation. Other factors that moderated in one and not the other scoring system include profitability (weighted system), board independence (unweighted), board gender diversity (unweighted system) and government ownership (weighted system). If such confirmation is accepted, then it reinforces the argument that the legislation affects the quality of CRD in different ways.

Moreover, the following factors were not moderated in both weighted and unweighted systems: liquidity, managerial ownership, and retail ownership. Thus, agency theory (managerial ownership, retail ownership) and signalling theory (liquidity) were invalidated. This is consistent with Madrigal et al. (2015) who found no significant association between the implementation of the COSO framework and corporate determinants in Spain. However, Miihkinen (2012), Tahat et al. (2016), Leopizzi et al. (2019) and Matuszak and Różańska (2021) found a positive association between CRD and legislation. This confirms the previous studies that submit that the association between CRD determinants and the legislation is not consistent.

10.4.5 Applicability of multi-theoretical perspective

This research sought to find whether disclosure theories could be applied to explain the quality of CRD in Kenya. The analysis of CRD determinants was conducted using the explanatory mixed methods. The quantitative analysis (Chapter 8) shows that CRD is complex as evidenced by multiplicity of determinants and theories. In addition, the qualitative analysis provides support for a multi-theoretical lens. The study concludes that variability in CRD is partly explained by the following disclosure theories: agency theory, resource dependence theory, signalling theory, stakeholder theory, legitimacy theory and institutional theory.

Agency theory is confirmed through the acceptance of firm size, leverage, firm growth, operating risk, foreign ownership, block ownership. Resource dependence theory is confirmed through acceptance of firm size, block ownership, and foreign ownership. Signalling theory is confirmed through acceptance of firm size, leverage and operating risk. Stakeholder management is confirmed through the acceptance of firm size and firm growth. Legitimacy theory is confirmed through the acceptance of firm size and firm growth. Lastly, institutional pressure is confirmed through the acceptance of foreign ownership. The multiplicity of factors and theories influencing CRD shows that managers use CRD to achieve several functions, namely to manage information asymmetry, to access critical resources, and to manage institutional pressure. The confirmation of different variables justifies the need for a multi-theoretical lens to study CRD in Kenya (Chapter 4).

Regarding the moderating effect of the Kenya Companies Act of 2015, the multi-theoretical framework has provided a broader understanding of the moderating role of legislation. The study supports the limited views of disclosure theories in explaining the factors influencing CRD. More specifically, the effect of some variables (theories) works better without legislation. Examples of these are firm size (agency theory, stakeholder theory, resource dependence theory and legitimacy theory), block ownership (agency theory and resource dependence theory), board activity (agency theory). However, other variables (theories) work better with legislation. Instances are leverage (agency theory, signalling theory, stakeholder theory and legitimacy theory), firm growth (agency theory, signalling theory, stakeholder theory and legitimacy), operating risk (agency theory and signalling theory) and foreign ownership (agency theory, resource dependence theory and institutional theory). The moderation analysis reinforces the use of a multi-theoretical lens to explain CRD behaviour.

10.4.6 Preparers' reasons for the practice of CRD

This objective sought to find the preparers' reasons for the practice of CRD. The qualitative analysis (Chapter 9) was conducted through interviews with preparers to obtain insights into the reasons behind CRD quality. The qualitative analysis aimed to interpret the findings of the quantitative analysis (Chapter 8). The qualitative analysis confirmed the significance of factors that had been confirmed by the quantitative analysis. However, it failed to accept some factors that had been confirmed by quantitative analysis. The inconsistency between qualitative and quantitative analysis justifies the need for triangulation of methods.

Despite the conflict between the variables accepted or rejected in qualitative and quantitative analysis, the following conclusions were arrived at. The qualitative analysis confirmed 12 determinants of CRD, namely firm size, leverage, firm growth, capital expenditure, operating risk, board size, board gender diversity, board independence, managerial ownership, foreign ownership, block ownership, and government ownership. This reinforces the argument that CRD is a multifaceted term that is explained by a multiplicity of factors.

Out of 12 determinants (qualitative analysis), 6 are consistent with quantitative analysis, namely firm size, firm growth, leverage, operating risk, foreign ownership and block ownership. This suggests that companies will strive to achieve a higher quality of CRD if they have a larger asset base, high growth, high debt burden, high operating risk, significant foreign shareholding and insignificant block shareholding. The implication is that both qualitative and quantitative analyses support multi-theoretical lens consisting of agency theory (firm size, leverage, firm growth, operating risk, foreign ownership, block ownership), stakeholder theory (firm size, firm growth), signalling theory (firm size, firm growth, operating risk), resource dependence theory (firm size, block ownership, foreign ownership), legitimacy theory (firm size, firm growth), and institutional theory (foreign ownership).

One determinant that has been consistently rejected in both quantitative and qualitative analyses is retail ownership. This suggests that the agency theory proposition that retail ownership influences CRD in Kenya is invalidated. Therefore, retail investors have no power to influence CRD in Kenya. It could also be that firms in Kenya are not pressured by individual investors to produce CRD. This reaffirms Ntim et al. (2013) who alluded that retail investors have no power to influence CRD, unlike institutional investors.

However, 4 out of 12 determinants from the qualitative analysis, namely capital expenditure, board size, managerial ownership, and government ownership, are not consistent with quantitative analysis. This is consistent with Tauringana and Chithambo (2016) who found mixed findings on CRD determinants in Malawi, with some results of qualitative analysis supporting quantitative analysis while others contradicting it. A possible explanation of the difference in findings is that the perception of the respondents may have been affected by the sample size; the number of firms included in the sample is not consistent between quantitative and qualitative analysis (Tauringana & Chithambo, 2016); the background of respondents; studies have shown that individual characteristics affect the individual

perception such as religion (Treisman, 2000), age (Torgler & Valev., 2010), and gender (Alatas et al., 2006). Notwithstanding the differences, qualitative analysis suggests that capital expenditure, board size, managerial ownership and government ownership partly explain CRD in Kenya. The implication of the qualitative analysis is that agency theory (capital expenditure, board size, managerial ownership), resource dependence (board size) and legitimacy theory (board size), stakeholder theory (board size, government ownership) and institutional theory (government ownership) partly explain CRD in Kenya. This reinforces the argument that no single theory can be used to explain the quality of CRD in Kenya.

10.4.7 Stakeholders' perceptions of the significance of the CRD framework

This objective sought to obtain the stakeholders' views on the significance of the proposed CRD framework (Appendix IV) in achieving HQCRD in Kenya. This was conducted through interviews with identified internal and external stakeholders. The framework consists of 62 disclosure items and 5 qualitative attributes of risk information that would help companies achieve high-quality CRD. The disclosure items are categorised into financial, business, and strategic risk. The qualitative attributes include time horizon, tone of disclosure, nature of disclosure, specificity, and linkage. Interview analysis concluded that CRD in Kenya has a long way to go to achieve HQCRD in absence of specialised and detailed legislation. However, there is general acceptance of the proposed disclosure items and attributes among the stakeholders.

This suggests that the proposed framework could be considered as the first step to improving CRD in Kenya. However, there is need to regularly update the framework to capture recent reporting practices. This reinforces the argument that CRD is not only complex but also dynamic in nature. Furthermore, stakeholders suggested additional disclosure items, namely financial losses, wasteful expenditure, budget allocations, financial statement integrity, risk of bankruptcy, business portfolio risk, revenue forecast risk, profit warning risk, project risks, knowledge and information management, seasonal risks, and technological environment risks. Similarly, stakeholders suggested other qualitative attributes of CRD; this suggests that listed non-financial firms should provide relevant, accurate, reliable, complete, comprehensive, timely, simple, meaningful, transparent and consistent risk information in the annual report. The interview analysis confirms the significant role of stakeholders when developing or updating CRD guidelines. Lastly, for CRD to achieve HQCRD, there is need to capture the proposed disclosure items and qualitative attributes.

10.5 Contribution to the body of knowledge

This study offers several contributions to CRD knowledge. First, it contributes to the definition and measurement of "high-quality CRD". More specifically, the study contributes to the understanding of HQCRD from stakeholders' perspectives, unlike other studies (Ntim et al., 2013; Tauringana & Chithambo, 2016; Beretta & Bozzolan, 2004; Linsley & Shrives, 2005; Elshandidy & Shrives, 2016; Grassa et al., 2020; Khandelwal et al., 2020; Saggar et al., 2021). This was achieved through a review of extant literature, CRD guidelines and interviews with stakeholders. In doing so, the study defined and measured the construct "HQCRD". The study used 62 disclosure items and 5 qualitative attributes, namely time horizon, tone of information, nature of information, specificity and linkage (Appendix IV). The present study responds to literature calling for research to examine quality of CRD using meaning-oriented content analysis and additional attributes (Salem et al., 2019). The measure developed provides a reference point when determining the status of CRD.

Secondly, the study extends the literature by documenting the quality of CRD and CRD determinants in Kenya using weighted and unweighted scoring systems. The study extends the knowledge by confirming that CRD in developing countries is of low quality and highly dispersed. The study adds to the limited literature on CRD determinants in developing countries. More importantly, the study extends the literature by using explanatory sequential design (quantitative and qualitative analysis). This is because CRD is both an observable reality (through existing corporate reports), empirically testable (through relating it to hypothesis determining variables) and social reality (with meaning that exists in the minds of the managers making CRD decisions). The present study responds to the literature calling for a mixed-methods design to study CRD in developing countries (Tauringana & Chithambo, 2016).

Thirdly, this study explains the moderating effect of the legislation on quality of CRD and CRD determinants. Broadly, the study establishes regulatory influence on CRD by listed non-financial firms, as evidenced by the amendment of the Kenya Companies Act of 2015. This helps to understand the regulatory effort in improving the quality of CRD in Kenya. In addition, it establishes the regulatory effect on quality of CRD and CRD determinants. The study extends the knowledge by confirming that the regulation has a significant effect on CRD practice in Kenya.

Fourthly, the study confirms the suitability of a multi-theoretical framework in explaining CRD in a developing country. The multi-theoretical framework consists of the commonly used disclosure theories, namely agency theory, signalling theory, stakeholder theory, resource dependence theory, legitimacy theory, and institutional theory. The study confirms that joint consideration of theories captures strengths and minimises the weaknesses of each. The multi-theoretical framework provides a broader perspective in explaining variations in CRD. In addition, the present study responds to literature calling for studies to examine CRD determinants using a multi-theoretical lens in developing economies (Ntim et al., 2013; Oliveira et al., 2013; Grassa et al., 2020).

10.6 Implications of research findings and conclusions

10.6.1 Regulators and policymakers

The regulators (NSE and CMA) and accounting standard setters (ICPAK) have not explicitly defined CRD. For CRD practice to serve its purpose, there is need for clarity on the definition and measurement among stakeholders. Failure to define the term brings confusion concerning what may constitute its quality. For regulators and standard setters to respond to the call for CRD transparency, such attempts should start by defining the concept. This study proposed a tentative definition of "High-Quality CRD" based on the review of literature and guidelines. Furthermore, stakeholders improved the definition to capture recent reporting practices that contribute to high quality. This definition is the first step toward a construct of study that is at the nascent stage. To move the CRD practice forward, there is need to expand the proposed definition to capture other reporting elements and recent changes in guidelines. The study also confirmed that CRD varies across the firms; this will help the regulators to understand the needs of capital market participants and to develop informed CRD guidelines. Since CRD is explained by a multiplicity of factors, for CRD to improve firm ability to produce must be enhanced through firm size (amalgamation, expansion), leverage (influence of creditors and lenders), operating risk (influence of operating environment), board independence (influence of non-executive directors) and foreign ownership (influence of foreign investors). In addition, regulators should improve governance mechanisms through optimisation of ownership structure (diffused ownership) to promote HQCRD. Regulators should also revise CRD guidelines to protect individual investors through promoting transparency. Lastly, the findings could be useful to CMA, NSE and ICPAK when evaluating disclosure transparency.

10.6.2 Firm management

The practitioners engage in CRD practice without announcing their definition of risk, which adds little to the improvement of the practice. The practitioners are encouraged to use the terms risk and high-quality CRD with clarity in line with the proposed definition. The users of the annual report find the current risk reporting not sufficient to address their needs. There is need for preparers to use recognised best practices when reporting risk in the annual report. The proposed definition provides a reference point for managers when assessing the quality of CRD. This will help to improve communication between managers and stakeholders. The study also showed that the Kenya Companies Act of 2015 requires a Business Review section in the annual report. However, the nature, scope and extent of CRD are not specified in the legislation. The present study will guide managers as to what to include in this review. In addition, managers should focus on the following factors to enhance quality of CRD in Kenya: firm size, leverage, firm growth, operating risk, board independence and foreign ownership. In addition, they should pay attention to the information needs of different shareholders when communicating risk information.

10.6.3 Financial analysts and investors

Buy-side- analysts and investors attach importance to the Business Review section. However, they expressed concern that the current risk reporting does not meet their expectations. To overcome this problem, managers should communicate risks associated with business and treatment measures. The CRD framework proposed in the study took into account the views of analysts and investors. Therefore, it can be used as a reference point by investors when assessing risk profile and transparency to make informed decisions. This will help them signal weak companies in advance and provide market discipline before a crisis.

10.6.4 Researchers and scholars

Researchers are engaged in risk and risk-related research without defining the concept. Likewise, the construct "quality of CRD" has been used by academicians without defining it. This brings confusion among the readers. The study extends the literature by developing a measure that can be used to establish CRD levels among listed firms in Kenya. The study provides insights into corporate characteristics and CRD, as well as the moderating effect of the Kenya Companies Act of 2015 on CRD. This study has confirmed that "high-quality CRD" is a rich and dynamic concept, with many facets to be examined. This provides a starting point when defining high-quality CRD for future studies. Thus, researchers are

invited to improve the definition of HQCRD proposed. In the same spirit, the study proposes a multi-theoretical framework (Chapter four) to study quality of CRD. The framework proposed will give guidelines to CRD researchers as a theoretical foundation for empirical studies.

10.7 Limitations and suggestions for future research

Despite the several contributions to CRD literature, the present study suffers from some limitations. For instance, measuring quality using the disclosure index introduces some element of subjectivity. Although measures were taken into account to mitigate any potential bias, there is need to explore quality using alternative methods for comparison purposes. Equally, the present study relied on prior literature and guidelines to develop the indices. It is worth noting that these guidelines keep on changing as a result of considering other better ways of reporting. Thus, the results should be interpreted with caution because the change in guidelines suggests that quality is dynamic. Future research should consider recent guidelines and literature.

The study examined annual reports of the listed firms in Kenya. It does not examine interim reports, earning releases, managers' briefings to the media, websites and other ways that firms communicate to the stakeholders. Therefore, the study conclusions should be treated with caution, and they should not be generalised beyond the annual report. To enrich the results, different methods of communication should be examined. In addition, the results of the interview analysis may not be generalised to the entire population as the number of stakeholders interviewed is relatively small compared to listed firms. Besides, bias is inevitably present in the interview process, despite the measures taken into account to mitigate it. Therefore, caution needs to be exercised in treating the study conclusions. Future research should extend the findings using a large sample and other qualitative methods.

The study results are applicable in explaining CRD practice among listed non-financial firms in Kenya. Generalising the results in another setting should take into account the underlying differences in economic, regulatory, and institutional settings. There is need for future studies to focus on cross-country settings. Likewise, the study proposes a theoretical framework that does not capture all the disclosure theories. Some theories, such as proprietary, political, and prospect theory, are not frequently used. There is need for future research to introduce such combinations in the framework.

LIST OF REFERENCES

Abdallah, W., Goergen, M., & O'Sullivan, N. (2015). Endogeneity: How Failure to Correct for it can Cause Wrong Inferences and Some Remedies. *British Journal of Management*, *26*(4), 791–804. https://doi.org/10.1111/1467-8551.12113

Abed, S., Al-Najjar, B., & Roberts, C. (2016). Measuring annual report narratives disclosure: Empirical evidence from forward-looking information in the UK prior the financial crisis. *Managerial Auditing Journal*, *31*(4–5), 338–361. https://doi.org/10.1108/MAJ-09-2014-1101

Abhayawansa, S., & Adams, C. (2021). Towards a conceptual framework for non-financial reporting inclusive of pandemic and climate risk reporting. *Meditari Accountancy Research*, *30*(3), 710–738. https://doi.org/10.1108/MEDAR-11-2020-1097

Abraham, S., & Cox, P. (2007). Analysing the determinants of narrative risk information in UK FTSE 100 annual reports. *British Accounting Review*, *39*(3), 227–248. https://doi.org/10.1016/j.bar.2007.06.002

Abraham, S., & Shrives, P. J. (2014). Improving the relevance of risk factor disclosure in corporate annual reports. *British Accounting Review*, *46*(1), 91–107. https://doi.org/10.1016/j.bar.2013.10.002

ACCA. (2014). *Reporting risk*. The Association of Chartered Certified Accountants. https://www.accaglobal.com/content/dam/acca/global/PDF-technical/financial-reporting/pol-afb-rr.pdf

Adib, M., Xianzhi, Z., & Eiris, V. (2019). Board Characteristics and Corporate Social Performance Nexus-A Multi-theoretical Analysis-Evidence from South Africa. *OSR Journal of Business and Management*, *21*(1), 24–38. https://doi.org/10.9790/487X-2101042438

African Development Bank Group (AfDB). (2019). *African Economic Outlook 2019*. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Economic_Outlook_2019_-_EN.pdf

African Development Bank Group (AfDB). (2021). *African Economic Outlook 2021*. https://www.afdb.org/en/knowledge/publications/african-economic-outlook

Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, *100*(1), 154–181. https://doi.org/10.1016/j.jfineco.2010.10.018

Aguilera, R. V, & Jackson, G. (2003). The Cross-National Diversity of Corporate

Governance: Dimensions and Determinants. *Academy of Management Review*, *28*(3), 447–465. http://www.jstor.org/stable/30040732%0A

Ahmed, K., & Nicholas, D. (1994). The impact of non-financial company characteristics on mandatory disclosure compliance in developing countries: The case of Bangladesh. *International Journal of Accounting*, *29*(1), 62–77.

Ahmed, K., & Courtis, J. K. (1999). Associations between corporate characteristics and disclosure levels in annual reports: A meta-analysis. *British Accounting Review*, *31*(1), 35–61. https://doi.org/10.1006/bare.1998.0082

Akerlof, G. A. (1970). The Market for Lemons: Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, *84*(3), 488–500. http://www.albayan.ae

Akhtaruddin, M., & Haron, H. (2010). Board ownership, audit committees' effectiveness and corporate voluntary disclosures. *Asian Review of Accounting*, *18*(1), 68–82. https://doi.org/10.1108/13217341011046015

Al-dubai, S. A. A., & Abdelhalim, A. M. M. (2021). The relationship between risk disclosure and firm performance : empirical evidence from Saudi Arabia. *The Journal of Asian Finance, Economics and Business*, *8*(6), 255–266. https://doi.org/10.13106/JAFEB.2021.VOL8.NO6.0255

Al-Hadi, A., Hasan, M. M., & Habib, A. (2016). Risk Committee, Firm Life Cycle, and Market Risk Disclosures. *Corporate Governance: An International Review*, *24*(2), 145–170. https://doi.org/10.1111/corg.12115

Al-Maghzom, A. (2016). *The determinants and consequences of risk disclosure in Saudi banks*. (Doctoral dissertation, University of Gloucestershire).

Al-Nodel, A., & Hussainey, K. (2010). Corporate Governance and Financing Decisions by Saudi Companies. *Journal of Modern Accounting and Auditing*, *6*(8), 1–14. http://hdl.handle.net/1893/11087

Al-shammari, B. (2014). An Investigation of the Impact of Corporate Governance Mechanisms on Level of Corporate Risk Disclosure: Evidence from Kuwait. *International Journal of Business and Social Research*, *4*(6), 51–70. https://doi.org/10.18533/ijbsr.v4i6.491

Al Lawati, H., Hussainey, K., & Sagitova, R. (2021). Disclosure quality vis-à-vis disclosure quantity: Does audit committee matter in Omani financial institutions? *Review of Quantitative Finance and Accounting*, *57*(2), 557–594. https://doi.org/10.1007/s11156-

020-00955-0

Alatas, V., Cameron, L., Chaudhuri, A., Erkal, N. & Gangadharan, L. (2006). Gender and corruption: insights from an experimental analysis. *Southern Economic Journal*, *75*(3), 663–680. https://www.jstor.org/stable/27751409

Albassam, W. (2014). *Corporate Governance, Voluntary Disclosure and Financial Performance. An Empirical Analysis of Saudi Listed Firms Using A Mixed-Methods Research Design* [Doctoral dissertation, University of Glasgow]. http://theses.gla.ac.uk/5280/

Alfraih, M. M., & Almutawa, A. M. (2014). Firm-Specific Characteristics and Corporate Financial Disclosure: Evidence from an Emerging Market. *International Journal of Accounting and Taxation*, *2*(3), 55–78. https://doi.org/10.15640/ijat.v2n3a4

Aljifri, K. (2008). Annual report disclosure in a developing country: The case of the UAE. *Advances in Accounting*, *24*(1), 93–100. https://doi.org/10.1016/j.adiac.2008.05.001

Aljifri, K., Alzarouni, A., Ng, C., & Tahir, M. I. (2014). The association between firm characteristics and corporate financial disclosures: Evidence from UAE companies. *The International Journal of Business and Finance Research*, *8*(2), 101–123. https://ssrn.com/abstract=2322965

Aljifri, K., & Hussainey, K. (2007). The determinants of forward-looking information in annual reports of UAE companies. *Managerial Auditing Journal*, *22*(9), 881–894. https://doi.org/10.1108/02686900710829390

Allegrini, M. & Greco, G. (2013). Corporate boards, audit committees and voluntary disclosure: evidence from Italian Listed Companies. *Journal of Management and Governance*, *17*(1), 187–216. https://doi.org/10.1007/s10997-011-9168-3

Allini, A., Manes Rossi, F., & Hussainey, K. (2016). The board's role in risk disclosure: an exploratory study of Italian listed state-owned enterprises. *Public Money & Management*, *36*(2), 113–120. https://doi.org/10.1080/09540962.2016.1118935

Almania, O. (2019). *Risk disclosure, corporate governance, and cost of capital of Saudi listed firms* [Doctoral dissertation, University of Glasgow]. https://eleanor.lib.gla.ac.uk/record=b3380216

Alzead, R. S. (2017). *The Determinants and Economic Consequences of Risk Disclosure: Evidence from Saudi Arabia*. (Doctoral dissertation, University of Portsmouth).

Amran, A., Bin, A. M. R., & Hassan, B. C. H. M. (2009). Risk reporting: An exploratory study on risk management disclosure in Malaysian annual reports. *Managerial Auditing*

Journal, *24*(1), 39–57. https://doi.org/10.1108/02686900910919893

Amran, A., Haat, M. H. C., & Manaf, R. A. (2008). Ownership structure and risk disclosure: A study of Malaysian listed companies. *Corporate Ownership and Control*, *5*(4), 451–460. https://doi.org/10.22495/cocv5i4c5p5

Ansoff, H. L. (1965). *Corporate Strategy. McGraw-Hill, New York.*

Ashforth, B. E., & Gibbs, B. W. (2008). The double-edge of organizational legitimation. *Organization Science*, *1*(2), 177–194.

Australian Securities & Investments Commission (ASIC). (2013). *Effective disclosure in an operating and financial review* (Issue March). http://download.asic.gov.au/media/1247147/rg247.pdf

Bamber, M., & McMeeking, K. (2015). An examination of international accounting standard-setting due process and the implications for legitimacy. *British Accounting Review*, *48*(1), 59–73. https://doi.org/10.1016/j.bar.2015.03.003

Banghøj, J., & Plenborg, T. (2008). Value relevance of voluntary disclosure in the annual report. *Accounting and Finance*, *48*(2), 159–180. https://doi.org/10.1111/j.1467-629X.2007.00240.x

Barakat, A., & Hussainey, K. (2013). Bank governance, regulation, supervision, and risk reporting: Evidence from operational risk disclosures in European banks. *International Review of Financial Analysis*, *30*, 254–273. https://doi.org/10.1016/j.irfa.2013.07.002

Barako, D. G. (2007). Determinants of voluntary disclosures in Kenyan companies annual reports. *African Journal of Business Management*, *1*(5), 113–128. https://doi.org/10.12691/jfe-7-3-4

Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review*, *14*(2), 107–125. https://doi.org/10.1111/j.1467-8683.2006.00491.x

Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research. Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

BCBS. (1996). *Amendment to the capital accord to incorporate market risks*. BCBS. https://www.bis.org/publ/bcbs24.htm

BCBS. (2006). *International Convergence of Capital Measurement and Capital Standards* (Issue June). BCBS. https://www.bis.org/publ/bcbs118.pdf

Beattie, V., McInnes, B., & Fearnley, S. (2004). A methodology for analysing and evaluating narratives in annual reports: A comprehensive descriptive profile and metrics for disclosure quality attributes. *Accounting Forum*, *28*(3), 205–236. https://doi.org/10.1016/j.accfor.2004.07.001

Bebchuk, L. A., & Cohen, A. (2005). The Costs of Entrenched Boards. *Journal of Financial Economics*, *78*, 409– 33. http://lsr.nellco.org/harvard_olin/47

Bell, T. B., Solomon, I., & Thomas, H. (1997). *Auditing organizations through a strategic-systems lens: the KPMG business measurement process*. KPMG.

Beretta, S., & Bozzolan, S. (2004). A framework for the analysis of firm risk communication. *International Journal of Accounting*, *39*(3), 265–288. https://doi.org/10.1016/j.intacc.2004.06.006

Beretta, S., & Bozzolan, S. (2008). Quality versus Quantity: The Case of Forward-Looking Disclosure. *Journal of Accounting, Auditing & Finance*, *23*(3), 333–376. https://doi.org/10.1177/0148558X0802300304

Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, *50*(2–3), 296–343. https://doi.org/10.1016/j.jacceco.2010.10.003

Blumberg, B., Cooper, D., & Schindler, P. (2005). *Research Methods. McGraw Hill, Berkshire, 770.*

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, *87*(1), 115–143. https://doi.org/10.1016/S0304-4076(98)00009-8

Bonner, S., Hesford, A., Van der Stede, W. A., & Young, M. S. (2006). The most influential journals in academic accounting. *Accounting, Organizations and Society*, *31*(7), 663–685. https://doi.org/10.1016/j.aos.2005.06.003

Bozzolan, S., & Miihkinen, A. (2021). The quality of mandatory non-financial (risk) disclosures : the moderating role of audit firm and partner characteristics. *The International Journal of Accounting*, *56*(02), 2150008. https://doi.org/10.1142/S1094406021500086

Branco, M. C., & Rodrigues, L. L. (2006). Corporate social responsibility and resource-based perspectives. *Journal of Business Ethics*, *69*(2), 111–132. https://doi.org/10.1007/s10551-006-9071-z

Buckby, S., Gallery, G., & Ma, J. (2015). An analysis of risk management disclosures:

Australian evidence. *Managerial Auditing Journal*, *30*(8–9), 812–869. https://doi.org/10.1108/MAJ-09-2013-0934

Bufarwa, I. M., Elamer, A. A., Ntim, C. G., & AlHares, A. (2020). Gender diversity, corporate governance and financial risk disclosure in the UK. *International Journal of Law and Management*, *62*(6), 521–538. https://doi.org/10.1108/IJLMA-10-2018-0245

Burrell, G., & Morgan, G. (2017). (1979). Sociological paradigms and organisational analysis: Elements of the sociology of corporate life. *Routledge.*, 22–25.

Cabedo, J.D., & Tirado, J. M. (2004). The disclosure of risk in financial statements. *Accounting Forum*, *28*, 181–200. https://doi.org/10.1016/j.accfor.2003.10.002

Capital Markets Authority (CMA). (2015). *CMA Handbook.*

Capital Markets Authority (CMA). (2020). *Quarterly Statistical Bulletin (QSB) Issue 45/2020* (Issue 45).

Capital Markets Authority (CMA). (2021). *The Capital Markets Soundness Report (CMSR), Quarter 4: Vol. XVII*.

Carmona, P., Fuentes, C. & Ruiz, C. (2016). Risk disclosure analysis in the corporate governance report using fuzzy-set qualitative comparative analysis. *Revista De Administração De Empresas*, *56*(3), 342–352. https://doi.org/10.1590/S0034-759020160307

Carpenter, V. & Feroz, E. (1992). GAAP as a symbol of legitimacy: New York state's decision to adopt generally accepted accounting principles. *Accounting, Organizations and Society*, *17*(7), 613–643. https://doi.org/10.1016/0361-3682(92)90016-L

Carroll, A. B. (1989). *Business and society ethics and stakeholder management, SouthWestern Publishing, Cincinnati, OH.*

CFA Institute. (2016). *User perspective on financial instrument risk disclosures under international financial reporting standards* (Vol. 1). Chartered Financial Analyst Institute. https://www.cfainstitute.org/research/survey-reports/user-perspectives-on-financial-instrument-risk-disclosures-under-ifrs

Chakrabartty, S. N. (2013). Best Split-Half and Maximum Reliability. *IOSR Journal of Research & Method in Education (IOSRJRME)*, *3*(1), 01–08. https://doi.org/10.9790/7388-0310108

Chakroun, R., & Hussainey, K. (2014). Disclosure quality in Tunisian annual reports. *Corporate Ownership and Control*, *11*(4 A), 58–80. https://doi.org/10.22495/cocv11i4p5

Chavent, M., Ding Y., Stolowy, H., & Wang, H. (2006). Disclosure and determinates studies: an extension using divisive clustering method (DIV). *The European Accounting Review*, *15*(2), 181–218. https://doi.org/10.1080/09638180500253092

Chen, J. C. & Roberts, R. W. (2010). Toward a more coherent under- standing of the organization-society relationship: A theoretical consideration for social and environmental accounting research. *Journal of Business Ethics, 97*, 651–665. https://www.jstor.org/stable/40929519

Clarkson, M. E. (1995). a Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. *Academy of Management Review*, *20*(1), 92–117. https://doi.org/10.5465/amr.1995.9503271994

Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2004). *Enterprise Risk Management — Integrated Framework.* COSO.

Conyon, M. J., & He, L. (2011). Executive compensation and corporate governance in China. *Journal of Corporate Finance*, *17*(4), 1158–1175. https://doi.org/10.1016/j.jcorpfin.2011.04.006

Cooke, T. E. (1998). Regression analysis in accounting disclosure studies. *Accounting and Business Research, 28*(3), 209–224. https://doi.org/10.1080/00014788.1998.9728910

Cornelius, P. (2005). Corporate practices and national governance systems: what do country r ankings tell us? *German Law Journal*, *6*(3), 583–604. https://doi.org/10.1017/S2071832200013821

Craswell, A. T., & Taylor, S. L. (1992). Discretionary disclosure of reserves by oil and gas companies: an economic analysis. *Journal of Business Finance & Accounting*, *19*(2), 295–308. https://doi.org/10.1111/j.1468-5957.1992.tb00626.x

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Sage.

Dam, L., & Scholtens, B. (2012). Does Ownership Type Matter for Corporate Social Responsibility? *Corporate Governance: An International Review*, *20*(3), 233–252. https://doi.org/10.1111/j.1467-8683.2011.00907.x

Deegan, C. (2000). Financial Accounting Theory,. *McGraw Hill Book Company, Sydney.*

Deumes, R. (2008). Corporate risk reporting: A content analysis of narrative risk disclosures in prospectuses. *Journal of Business Communication*, *45*(2), 120–157. https://doi.org/10.1177/0021943607313992

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: institutional isomorphism

and collective rationality in organizational fields. *American Sociological Review*, *48*(2), 147–160. https://doi.org/10.17323/1726-3247-2010-1-34-56

Dobler, M., Lajili, K., & Zéghal, D. (2011). Attributes of corporate risk disclosure: An international investigation in the manufacturing sector. *Journal of International Accounting Research*, *10*(2), 1–22. https://doi.org/10.2308/jiar-10081

Dominguez-blanco, G. (2020). *Comparative study of the quality of risk disclosures in shareholders and stakeholder reports between developed and developing countries (case: oil industry)* [Master Thesis, Nottingham Trent University]. http://irep.ntu.ac.uk/id/eprint/39190/

Domínguez, L.R. & Gámez, L. C. N. (2014). Corporate reporting on risks: evidence from Spanish companies. *Revista de Contabilidad*, *17*(2), 116–129. https://doi.org/10.1016/j.rcsar.2013.10.002

Donaldson, L., & Davis, J. H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, *16*(3), 49–65. https://doi.org/10.1177/031289629101600103

Driscoll, J. C., & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *Review of Economics and Statistics*, *80*(4), 549–559. https://doi.org/10.1162/003465398557825

Dutta, P. & Bose, S. (2006). Gender diversity in the boardroom and financial performance of commercial banks: evidence from Bangladesh. *The Cost and Management*, *34*, 70–74. https://core.ac.uk/download/pdf/6858142.pdf

Edkins, A. (2009). *Risk disclosure and re-establishing legitimacy in the event ofa crisis - Did northern rock use risk disclosure to repair legitimacy after their 2007 collapse? (Working Paper).* http://eprints.whiterose.ac.uk/11231/

El-Diftar, D., Jones, E., Ragheb, M., & Soliman, M. (2017). Institutional investors and voluntary disclosure and transparency: the case of Egypt. *Corporate Governance (Bingley)*, *17*(1), 134–151. https://doi.org/10.1108/CG-05-2016-0112

Elamer, A.A., Ntim, C.G., Abdou, H.A., Zalata, A.M. & Elmagrhi, M. (2019a). The impact of multi-layer governance on bank risk disclosure in emerging markets: The Case of Middle East and North Africa. *Accounting Forum*, *43*(2), 246–281. https://doi.org/10.1080/01559982.2019.1576577

Elamer, A.A., Ntim, C.G., Abdou, H.A. & Pyke, C. (2019b). Sharia supervisory boards, governance structures and operational risk disclosures: evidence from Islamic banks in

MENA countries. *Global Finance Journal*, *46*, 100488. https://doi.org/10.1016/j.gfj.2019.100488

Elghaffar, E. S. A., Abotalib, A. M., & Khalil, M. A. A. M. (2019). Determining factors that affect risk disclosure level in Egyptian banks. *Banks and Bank Systems*, *14*(1), 159–171. https://doi.org/10.21511/bbs.14(1).2019.14

Elshandidy, T., Shrives, P.J., Bamber, M. & Abraham, S. (2018). Risk reporting: A review of the literature and implications for future research. *Journal of Accounting Literature*, *40*(1), 54–82. https://doi.org/10.1016/j.acclit.2017.12.001

Elshandidy, T., Elmassri, M., & Elsayed, M. (2021). Integrated reporting, textual risk disclosure and market value. *Corporate Governance: The International Journal of Business in Society*, *22*(1), 173–193. https://doi.org/10.1108/cg-01-2021-0002

Elshandidy, T., Fraser, I., & Hussainey, K. (2013). Aggregated, voluntary, and mandatory risk disclosure incentives: Evidence from UK FTSE all-share companies. *International Review of Financial Analysis*, *30*, 320–333. https://doi.org/10.1016/j.irfa.2013.07.010

Elshandidy, T., Fraser, I., & Hussainey, K. (2015). What drives mandatory and voluntary risk reporting variations across Germany, UK and US? *British Accounting Review*, *7*(4), 376–394. https://doi.org/10.1016/j.bar.2014.06.001

Elshandidy, T., & Neri, L. (2015). Corporate governance, risk disclosure practices, and market liquidity: Comparative evidence from the UK and Italy. *Corporate Governance: An International Review*, *23*(4), 331–356. https://doi.org/10.1111/corg.12095

Elshandidy, T., Neri, L., & Guo, Y. (2018). Determinants and impacts of risk disclosure quality : evidence from China. *Journal of Applied Accounting Research.*, *19*(4), 518–536. https://doi.org/10.1108/JAAR-07-2016-0066

Elshandidy, T., & Shrives, P. J. (2016). Environmental incentives for and usefulness of textual risk reporting: evidence from Germany. *International Journal of Accounting*, *51*(4), 464–486. https://doi.org/10.1016/j.intacc.2016.10.001

Elzahar, H., & Hussainey, K. (2012). Determinants of narrative risk disclosures in UK interim reports. *Journal of Risk Finance*, *13*(2), 133–147. https://doi.org/10.1108/15265941211203189

Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, *22*(4), 325–345. https://doi.org/10.1016/S0278-4254(03)00037-1

Financial Accounting Standard Board (FASB). (2001). *Improving business reporting:*

insights into enhancing voluntary disclosures. Steering Committee Report, Business Reporting Research Project. https://www.fasb.org/page/getarticle?

Financial Reporting Council (FRC). (2018). *Guidance on the Strategic Report* (Issue July). www.frcpublications.com

Financial Sector Regulators. (2018). *The kenya financial sector stability report* (Issue 9).

Financial Sector Regulators. (2020). *The Kenya Financial Stability Report* (Issue 11).

Fleming, G., Heaney, R., & McCosker, R. (2005). Agency costs and ownership structure in Australia. *Pacific Basin Finance Journal*, *13*(1), 29–52. https://doi.org/10.1016/j.pacfin.2004.04.001

Folami, L. B., & Jacobs, F. (2016). A Multidisciplinary Approach To Risk Management For Accounting Firms. *Journal of Applied Business Research (JABR)*, *18*(4). https://doi.org/10.19030/jabr.v18i4.2130

Freeman, R. E., & Reed, D. L. (1983). Stockholders and stake- holders: A new perspective on corporate governance. *California Management Review*, *25*(3), 88–106. https://doi.org/10.2307/41165018

Freeman, R. E. (1984). the Stakeholder Approach. *Strategic Management*, *1*, 1–2. https://doi.org/10.1017/cbo9781139192675.003

Friedman, M. (1962). *Capitalism and Freedom*. The University of Chicago Press.

Fukukawa, H., & Kim, H. (2017). Effects of audit partners on clients' business risk disclosure. *Accounting and Business Research*, *47*(7), 780–809. https://doi.org/10.1080/00014788.2017.1299619

Gaver, J.J. & Gaver, K. M. (1993). Additional Evidence on the Association between the Investment Opportunity Set and Corporate Financing, Dividend, and Compensation Policies. *Journal of Accounting and Economics*, *16*, 125–160. https://doi.org/10.1016/0165-4101(93)90007-3

Gelter, M., & Puaschunder, J. M. (2021). *COVID-19 and comparative corporate governance. Journal of Corporation Law, In Press.* https://ir.lawnet.fordham.edu/faculty_scholarship/1145

Global Reporting Initiative (GRI). (2006). *Sustainability Reporting*. https://www.globalreporting.org/resourcelibrary/G3-Sustainability-Reporting-Guidelines

Gonidakis, F. K., Koutoupis, A. G., Tsamis, A. D., & Agoraki, M. E. K. (2020). Risk disclosure in listed Greek companies: the effects of the financial crisis. *Accounting Research Journal*, *33*(4–5), 615–633. https://doi.org/10.1108/ARJ-03-2020-0050

Government of Kenya (GOK). (2010). *Laws of Kenya*. Governement Printer.

Government of Kenya (GOK). (2015a). *Mwongozo: The Code of Governance for State Corporations* (Vol. 1). Government Printer.

Government of Kenya (GOK). (2015b). *The Companies Act No 17 of 2015*. Government Printer.

Grassa, R., Moumen, N., & Hussainey, K. (2020). Do ownership structures affect risk disclosure in Islamic banks? International evidence. *Journal of Financial Reporting and Accounting*, *19*(3), 369–391. https://doi.org/10.1108/JFRA-02-2020-0036

Gray, R., Owen, D., & Adams, C. (2009). Some theories for social accounting?: A review essay and a tentative pedagogic categorisation of theorisations around social accounting. *Sustainability, Environmental Performance and Disclosures.*, *4*, 1–54. https://doi.org/10.1108/s1479-3598(2010)0000004014

Guest, P. M. (2009). The impact of board size on firm performance: Evidence from the UK. *European Journal of Finance*, *15*(4), 385–404. https://doi.org/10.1080/13518470802466121

Gujarati, D. N., & Porter, D. C. (2010). *Essentials of Econometrics* (4th ed.). McGraw-Hill Irwi. www.mhhe.com

Gul, F. A., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, *23*(5), 351–379. https://doi.org/10.1016/j.jaccpubpol.2004.07.001

Guthrie, J., Manes Rossi, F., Orelli, R.L. & Nicolò, G. (2020). Investigating risk disclosures in Italian integrated reports. *Meditari Accountancy Research*, *28*(6), 1149–1178. https://doi.org/10.1108/MEDAR-10-2019-0596

Guthrie, J. & Parker, L. (1989). Corporate Social Reporting: A Rebuttal of Legitimacy Theory. *Accounting and Business Research*, *19*, 343-352. https://doi.org/10.1080/00014788.1989.9728863

Habbash, M., Hussainey, K., & Awad, E. (2016). The determinants of voluntary disclosure in Saudi Arabia: an empirical study. *International Journal of Accounting, Auditing and Performance Evaluation*, *12*(3), 213–236. https://doi.org/10.1504/IJAAPE.2016.077890

Habtoor, O. S., Hassan, W. K., & Aljaaidi, K. S. (2019). The impact of corporate ownership structure on corporate risk disclosure: Evidence from the Kingdom of Saudi Arabia. *Business and Economic Horizons*, *15*(1232-2020–351), 325. https://doi.org/10.15208/beh.2019.20

Haniffa, R., & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance and Accounting*, *33*(7–8), 1034–1062. https://doi.org/10.1111/j.1468-5957.2006.00594.x

Haniffa, R., & Hudaib, M. (2007). Exploring the ethical identity of Islamic Banks via communication in annual reports. *Journal of Business Ethics*, *76*(1), 97–116. https://doi.org/10.1007/s10551-006-9272-5

Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, *24*(5), 391–430. https://doi.org/10.1016/j.jaccpubpol.2005.06.001

Hassan, M. K. (2009). UAE corporations-specific characteristics and level of risk disclosure. *Managerial Auditing Journal*, *24*(7), 668–687. https://doi.org/10.1108/02686900910975378

Helbok, G., & Wagner, C. (2003). Determinants of Operational Risk Reporting in the Banking Industry. *Risk Management & Analysis in Financial Institutions EJournal.* https://doi.org/10.2139/ssrn.425720

Hemrit, W., Mounira, B. A., & Arab, M. Ben. (2011). The disclosure of operational risk in Tunisian insurance companies. *Journal of Operational Risk*, *6*(2), 69–111. https://doi.org/10.21314/JOP.2011.089

Hernández-Madrigal, M., Aibar Guzmán, B., & Aibar Guzmán, C. (2015). Determinants of corporate risk disclosure in large Spanish companies: A snapshot. *Contaduria y Administracion*, *60*(4), 757–775. https://doi.org/10.1016/j.cya.2015.05.014

Hernández-Madrigal, M., Blanco-Dopico, M. I., & Aibar-Guzmán, B. (2012). The influence of mandatory requirements on risk disclosure practices in Spain. *International Journal of Disclosure and Governance*, *9*(1), 78–99. https://doi.org/10.1057/jdg.2011.22

Hope, O. K., Hu, D., & Lu, H. (2016). The benefits of specific risk-factor disclosures. *Review of Accounting Studies*, *21*(4), 1005–1045. https://doi.org/10.1007/s11142-016-9371-1

Horcher, K. A. (2005). *Essentials of Financial Risk Management.* John Wiley & Sons Inc.

Hou, W., & Moore, G. (2010). Player and Referee Roles Held Jointly: The Effect of State Ownership on China's Regulatory Enforcement Against Fraud. *Journal of Business Ethics*, *95*(2), 317–335. https://doi.org/10.1007/s10551-011-0858-1

Htay, S., Rashid, H., Adnan, M., & Meera, A. (2011). Corporate Governance and Risk Management Information Disclosure in Malaysian Listed Banks: Panel Data Analysis. *International Review of Business Research Papers*, *7*(4), 159–176.

https://doi.org/10.21511/bbs.14(1).2019.14

Huafang, X., & Jianguo, Y. (2007). Ownership structure, board composition and corporate voluntary disclosure: Evidence from listed companies in China. *Managerial Auditing Journal*, *22*(6), 604–619. https://doi.org/10.1108/02686900710759406

Hyndman, N., McKillop, D., Ferguson, C., & Wall, T. (2004). The financial accountability of irish credit unions: An initial empirical study. *Financial Accountability & Management*, *20*(3), 253–279. https://doi.org/10.1111/j.0267-4424.2004.00385.x

Ibrahim, A. E. A., & Hussainey, K. (2019). Developing the narrative risk disclosure measurement. *International Review of Financial Analysis*, *64*, 126–144. https://doi.org/10.1016/j.irfa.2019.05.006

Ibrahim, A., Habbash, M., & Hussainey, K. (2019). Corporate governance and risk disclosure : evidence from Saudi Arabia. *Int. J. Accounting, Auditing and Performance Evaluation*, *15*(1), 89–111. https://doi.org/10.1504/IJAAPE.2019.096748

Inchausti, B. G. (1997). The influence of company characteristics and accounting regulation on information disclosed by Spanish firms. *European Accounting Review*, *6*(1), 45–68. https://doi.org/10.1080/096381897336863

Institute of Certified Public Accountants of Kenya (ICPAK). (2013). *FIRE Award Report: Financial Reporting Award for Excellence*. ICPAK.

Institute of Chartered Accountants of England & Wales (ICAEW). (1997). *Financial Reporting of Risk—Proposals for a Statement of Business Risk.* ICAEW.

Institute of Chartered Accountants of England & Wales (ICAEW). (2002). *Prospective financial information: Guidance for UK directors.* ICAEW.

Institute of Chartered Accountants of England & Wales (ICAEW). (2011). *Reporting Business Risks: Meeting Expectations*. ICAEW.

International Integrated Reporting Council (IIRC). (2013). *Integrated Reporting-Framework*. IIRC. www.theiirc.org

Jain, S., & Raithatha, M. (2021). Risk disclosures and firm value: the role of governance in an emerging market. *International Journal of Productivity and Performance Management*, Preprint. https://doi.org/10.1108/IJPPM-09-2020-0476

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jia, J., Munro, L., & Buckby, S. (2016a). A finer- grained approach to assessing the ‘ quality

’ (‘ quantity ’ and ‘ richness ’) of risk management disclosures. *Managerial Auditing Journal*, *31*(8/9), 770–803. https://doi.org/10.1108/MAJ-12-2014-1135

Joseph, C., & Taplin, R. (2011). The measurement of sustainability disclosure: Abundance versus occurrence. *Accounting Forum*, *35*(1), 19–31. https://doi.org/10.1016/j.accfor.2010.11.002

Kamaruzaman, S. A., Ali, M. M., Ghani, E. K., & Gunardi, A. (2019). Ownership structure, corporate risk disclosure and firm value: A Malaysian perspective. *International Journal of Managerial and Financial Accounting*, *11*(2), 113–131. https://doi.org/10.1504/IJMFA.2019.099766

Kenya Institute for Public Policy Research & Analysis (KIPPRA). (2020). *Kenya Economic Report : Creating an Enabling Environment*.

Kenya National Bureau of Statistics. (2010). *Economic Survey 2010* (Issue October 1997). Kenya National Bureau of Statistics, Nairobi Kenya.

Kenya National Bureau of Statistics (KNBS). (2018). *Economic Survey Kenya*.

Kenya National Bureau of Statistics (KNBS). (2019). *Kenya population and housing census: Vol. I*.

Kenya National Bureau of Statistics (KNBS). (2020). *Economic survey 2020*.

Khandelwal, C., Kumar, S., Madhavan, V. & Pandey, N. (2020). Do board characteristics impact corporate risk disclosures? The Indian experience. *Journal of Business Research*, *121*, 103–111. https://doi.org/10.1016/j.jbusres.2020.08.004

Khlif, H., & Hussainey, K. (2014). The association between risk disclosure and firm characteristics: A meta-analysis. *Journal of Risk Research*, *19*(2), 181–211. https://doi.org/10.1080/13669877.2014.961514

Khurana, I. K., Pereira, R., & Martin, X. (2006). Firm growth and disclosure: An empirical analysis. *Journal of Financial and Quantitative Analysis*, *41*(2), 357–380. https://doi.org/10.1017/S0022109000002106

Kiflee, A. K. R., & Ali Khan, M. N. A. (2021). the Effect of Performance and Corporate Governance To Risk Disclosure Among. *Asia-Pacific Management Accounting Journal*, *16*(February 2021), 119–161.

King Committee. (2002). *King Reports on corporate governance for South Africa. Johannesburg: Institute of Directors*.

King Committee. (2016). *Corporate governance for South Africa “King IV Report on Corporate Governance for South Africa.”* Institute of Directors.

https://www.adams.africa/wp-content/uploads/2016/11/King-IV-Report.pdf

Kongprajya, C. (2010). *The study of corporate risk disclosure in the case of Thai listed companies*. (Masters Thesis, University of Nottingham).

Konishi, N., & Ali, M. M. (2007). Risk reporting of Japanese companies and its association with corporate characteristics. *International Journal of Accounting, Auditing and Performance Evaluation*, *4*(3), 263–285. https://doi.org/10.1504/IJAAPE.2007.016281

Kravet, T., & Muslu, V. (2013). Textual risk disclosures and investors' risk perceptions. *Review of Accounting Studies*, *18*(4), 1088–1122. https://doi.org/10.2139/ssrn.1736228

Krippendorff, K. (2004). *Content Analysis: An Introduction to Its Methodology* (2nd ed.). Sage.

Lajili, K., & Zéghal, D. (2005). A content analysis of risk management disclosures in Canadian annual reports. *Canadian Journal of Administrative Sciences*, *22*, 125–142. https://doi.org/10.1111/j.1936-4490.2005.tb00714.x

Laksmana, I. (2008). Corporate board governance and voluntary disclosure of executive compensation practices. *Contemporary Accounting Research*, *25*(4), 1147–1182. https://doi.org/10.1506/car.25.4.8

Larcker, D. F. & Rusticus, T. O. (2010). On the use of instrumental variables in accounting research. *Journal of Accounting & Economics*, *49*, 186–205. https://doi.org/10.1016/j.jacceco.2009.11.004

Last, J. (2000). *A Dictionary of Epidemiology* (4th ed.). Oxford University Press.

Leopizzi, R., Iazzi, A., Venturelli, A. & Principale, S. (2019). Non-financial risk disclosure: The "state of the art" of Italian companies. *Corporate Social Responsibility and Environmental Management*, *27*(1), 358–368. https://doi.org/10.3390/su12010092

Li, J., & Zhao, X. (2016). Complexity and Information Content of Financial Disclosures: Evidence from Evolution of Uncertainty Following 10-K Filings. *SSRN Electronic Journal*. http://ssrn.com/abstract = 2535469.

Li, Y., He, J., & Xiao, M. (2018). Risk Disclosure in Annual Reports and Corporate Investment Efficiency. *International Review of Economics & Finance*, *63*(C), 138–151. https://doi.org/10.1016/J.IREF.2018.08.021

Linsley, P. M., & Shrives, P. J. (2005). Examining risk reporting in UK public companies. *Journal of Risk Finance*, *6*(4), 292–305. https://doi.org/10.1108/15265940510613633

Linsley, P. M., & Shrives, P. J. (2006). Risk reporting: A study of risk disclosures in the annual reports of UK companies. *British Accounting Review*, *38*(4), 387–404.

https://doi.org/10.1016/j.bar.2006.05.002

Linsley, P. M., Shrives, P. J., & Crumpton, M. (2006). Risk disclosure: An exploratory study of UK and Canadian banks. *Journal of Banking Regulation*, *7*(3), 268-282. https://doi.org/10.1057/palgrave.jbr.2350032

Lopes, P. T., & Rodrigues, L. L. (2007). Accounting for financial instruments: An analysis of the determinants of disclosure in the Portuguese stock exchange. *International Journal of Accounting*, *42*(1), 25–56. https://doi.org/10.1016/j.intacc.2006.12.002

Mahadeo, J. D., Soobaroyen, T., & Oogarah-Hanuman, V. (2012). Board composition and financial performance: Uncovering the effects of diversity in an emerging economy'. *Journal of Business Ethics*, *105*(3), 375–388. https://doi.org/10.1007/s10551-011-0973-z

Mahmood, Z., Kouser, R., Ali, W., Ahmad, Z. & Salman, T. (2018). Does corporate governance affect sustainability disclosure? A mixed methods study. *Sustainability (Switzerland)*, *10*(1), 1–20. https://doi.org/10.3390/su10010207

Mangena, M., & Pike, R. (2005). The effect of audit committee shareholding, financial expertise and size on interim financial disclosures. *Accounting and Business Research*, *35*(4), 327–349. https://doi.org/10.1080/00014788.2005.9729998

Marston, C. L., & Shrives, P. J. (1991). The use of disclosure indices in accounting research: A review article. *British Accounting Review*, *23*, 195–210. https://doi.org/10.1016/0890-8389(91)90080-L

Martikainen, M., Kinnunen, J., Miihkinen, A., & Troberg, P. (2015). Board's financial incentives, competence, and firm risk disclosure: Evidence from Finnish index listed companies. *Journal of Applied Accounting Research*, *16*(3), 333–358. https://doi.org/10.1108/JAAR-10-2014-0117

Marzouk, M. (2016). Risk reporting during a crisis: Evidence from the Egyptian capital market. *Journal of Applied Accounting Research*, *17*(4), 378–396. https://doi.org/10.1108/JAAR-02-2015-0012

Mathuva, D. M., Tauringana, V., & Owino, F. J. O. (2019). Corporate governance and the timeliness of audited financial statements: The case of Kenyan listed firms. *Journal of Accounting in Emerging Economies*, *9*(4), 473–501. https://doi.org/10.1108/JAEE-05-2018-0053

Matore, E. M., & Khairani, A. Z. (2020). The Pattern of Skewness And Kurtosis Using Mean Score And Logit In Measuring Adversity Quotient (AQ) For Normality Testing. *International Journal of Future Generation Communication and Networking*, *13*(1),

688–702. https://sersc.org/journals/index.php/IJFGCN/article/view/6571

Matuszak, Ł., & Różańska, E. (2021). Towards 2014/95/EU directive compliance: the case of Poland. *Sustainability Accounting, Management and Policy Journal*, *12*(5), 1052–1076. https://doi.org/10.1108/SAMPJ-02-2020-0042

Mazumder, M. M. M., & Hossain, D. M. (2018). Research on corporate risk reporting: Current trends and future avenues. *Journal of Asian Finance, Economics and Business*, *5*(1), 29–41. https://doi.org/10.13106/jafeb.2018.vol5.no1.29

Mbithi, E., Moloi, T. & Wangombe, D. (2022a). An empirical examination of board-related and firm-specific drivers on risk disclosure by listed firms in Kenya: a mixed-methods approach. *Corporate Governance*, *Pre-print*. https://doi.org/https://doi.org/10.1108/CG-11-2021-0395

Mbithi, E., Moloi, T. & Wangombe, D. (2022b). Corporate risk disclosure: A systematic literature review and future research agenda. *Cogent Business & Management*, *9*(1), 2105569. https://doi.org/10.1080/23311975.2022.2105569

Mbithi, E., Wang'ombe, D., & Moloi, T. (2020). Multi-theoretical perspectives for corporate risk disclosure: a literature review. *International Journal of Critical Accounting*, *11*(2), 125–143. https://doi.org/10.1504/IJCA.2020.105064

McFie, J. B. (2006). *High Quality Financial Reporting: The Case of the Nairobi Stock Exchange*. (Doctoral dissertation, University of Strathclyde).

Merkl-Davies, D. M., & Brennan, N. M. (2007). Discretionary disclosure strategies in corporate narratives : incremental information or impression management? *Journal of Accounting Literature*, *26*(1–2), 116–196. https://doi.org/http://dx.doi.org/10.1680/geot.2008.T.003

Meyer, J. W., & Rowan, B. (1977). Institutionalized Organizations : Formal Structure as Myth and Ceremony: The University of Chicago Press St. *American Journal of Sociology*, *83*(2), 340–363. https://www.journals.uchicago.edu/doi/10.1086/226550

Miihkinen, A. (2012). What drives quality of firm risk disclosure?. the impact of a national disclosure standard and reporting incentives under IFRS. *International Journal of Accounting*, *47*(4), 437–468. https://doi.org/10.1016/j.intacc.2012.10.005

Miihkinen, A. (2013). The usefulness of firm risk disclosures under different firm riskiness, investor-interest, and market conditions: New evidence from Finland. *Advances in Accounting*, *29*(2), 312–331. https://doi.org/10.1016/j.adiac.2013.09.006

Milne, M. J., & Hackston, D. (1996). Some determinants of social and environmental

disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, *9*(1), 77–108. https://doi.org/10.1108/09513579610109987

Mohajan, H. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. *Annals of Spiru Haret University*, *7326*.

Mokhtar, E. S., & Mellett, H. (2013). Competition, corporate governance, ownership structure and risk reporting. *Managerial Auditing Journal*, *28*(9), 838–865. https://doi.org/:10.1108/MAJ-11-2012-0776

Moloi, T., Nharo, T., & Hlobo, M. (2021). The relationship between board characteristics and dividend payment policies in the JSE top 40 listed companies. *Journal of Academic Finance*, *12*(1), 30–52. https://doi.org/10.5281/zenodo.4994763

Moloi, T. (2014). Disclosure of risk management practices in the top South Africas mining companies: An annual/integrated report disclosure analysis. *African Journal of Business Management*, *8*(17), 681–688. https://doi.org/10.5897/AJBM2014.7517

Morgan & Smircich. (1980). The Case for Qualitative Research. *Academy of Management Review*, *5*(4), 491–500. https://www.jstor.org/stable/257453

Mousa, G. A., & Elamir, E. A. H. (2014). The effect of governance mechanisms on the quality of risk disclosure: using bootstrap techniques. *American J. of Finance and Accounting*, *3*(2/3/4), 128. https://doi.org/10.1504/ajfa.2014.060811

Muttakin, M. B., & Subramaniam, N. (2015). Do they matter for corporate social responsibility disclosure of Indian companies? *Sustainability Accounting, Management and Policy Journal*, *6*(2), 138–165. https://doi.org/10.1108/SAMPJ-10-2013-0042

Muturi, W. (2018). Determinants of risk disclosures in Kenyan listed companies. *African Journal of Business Management*, *12*(10), 267–273. https://doi.org/10.5897/AJBM2018.850

Muturi, W. (2019). Corporate governance and risk disclosures: An empirical study of listed companies in Kenya. *African Journal of Business Management*, *13*(17), 571–578.

Muzahem, A. (2011). *An Empirical Analysis on the Practice and Determinants of Risk Disclosure in an Emerging Capital Market: The Case of United Arab Emirates*. (Doctoral Thesis, University of Portsmouth).

Nagar, V., Nanda, D. & Wysocki, P. (2003). "Discretionary disclosure and stock-based incentives." *Journal of Accounting and Economics*, *34*(1), 283–309. https://doi.org/10.1016/S0165-4101(02)00075-7

Nagata, K., & Nguyen, P. (2017). Ownership structure and disclosure quality: Evidence from

management forecasts revisions in Japan. *Journal of Accounting and Public Policy, 36*(6), 451–467. https://doi.org/10.1016/j.jaccpubpol.2017.09.003

National Council for Population and Development (NCPD). (2013). *Kenya Population Situation Analysis*. https://www.worldometers.info/world-population/kenya-population/

Netti, A. (2019). Firm determinants of risk disclosure: evidence from Italian listed companies. *Corporate Ownership and Control, 16*(1), 168–177. https://doi.org/10.22495/cocv16i1c1art5

Nkuutu, G., Ntayi, J.M., Nkote, I.N., Munene, J. & Kaberuka, W. (2020). Board governance quality and risk disclosure compliance among financial institutions in Uganda. *Journal of Asian Business and Economic Studies, 28*(1), 64–81. https://doi.org/10.1108/JABES-04-2020-0036

Ntim, C. G., Lindop, S., & Thomas, D. A. (2013). Corporate governance and risk reporting in South Africa: A study of corporate risk disclosures in the pre- and post-2007/2008 global financial crisis periods. *International Review of Financial Analysis*, *30*, 363–383. https://doi.org/10.1016/j.irfa.2013.07.001

Ntim, C. G., Opong, K. K., & Danbolt, J. (2012). The relative value relevance of shareholder versus stakeholder corporate governance disclosure policy reforms in South Africa. *Corporate Governance: An International Review*, *20*(1), 84–105. https://doi.org/10.1111/j.1467-8683.2011.00891.x

Ntim, C. G., & Soobaroyen, T. (2013). Corporate governance and performance in socially responsible corporations: New empirical insights from a neo-institutional framework. *Corporate Governance: An International Review*, *21*(5), 468–494. https://doi.org/10.1111/corg.12026

Nyasha, S., & Odhiambo, N. M. (2014). The dynamics of stock market development in Kenya. *Journal of Applied Business Research, 30*(1), 73–82. https://doi.org/10.19030/jabr.v30i1.8284

O'Dwyer, B. (2002). Managerial perceptions of corporate social disclosure: An Irish story. In *Accounting, Auditing & Accountability Journal* (Vol. 15, Issue 3). https://doi.org/10.1108/09513570210435898

O'Sullivan, M., Percy, M., & Stewart, J. (2008). Australian evidence on corporate governance attributes and their association with forward-looking information in the annual report. *Journal of Management and Governance, 12*(1), 5–35. https://doi.org/10.1007/s10997-007-9039-0

Okiro, K. O. (2014). *Corporate Governance, Capital Structure, Regulatory Compliance and Performance of Firm Listed at The East African Community Securities Exchange*. (Doctoral Thesis, University of Nairobi).

Oliveira, J., Rodrigues, L. L., & Craig, R. (2010). *Risk reporting : a literature review* (Working paper Number 1/2013).

Oliveira, J., Rodrigues, L. L., & Craig, R. (2011a). Risk-related disclosure practices in the annual reports of Portuguese credit institutions: An exploratory study. *Journal of Banking Regulation*, *12*(2), 100–118. https://doi.org/10.1057/jbr.2010.20

Oliveira, J., Rodrigues, L. L., & Craig, R. (2011b). Risk-related disclosures by non-finance companies: Portuguese practices and disclosure characteristics. *Managerial Auditing Journal*, *26*(9), 817–839. https://doi.org/10.1108/02686901111171466

Oliveira, J., Rodrigues, L. L., & Craig, R. (2013). Risk reporting: a literature review. *Working Paper*, *1–58*. http://hdl.handle.net/1822/23683

Oliveira, J., Serrasqueiro, R., & Mota, S. N. (2018). Determinants of risk reporting by Portuguese and Spanish non-finance companies. *European Business Review*, *30*(3), 311–339. https://doi.org/10.1108/EBR-04-2017-0076

Onyuma, S. O. (2020). Exchange Automation and Adaptive Efficiency at the Kenyan Securities Market. *European Journal of Business and Management*, *12*, 15. https://doi.org/10.7176/ejbm/12-15-06

Ott, C. (2020). The risks of mergers and acquisitions—Analyzing the incentives for risk reporting in Item 1A of 10-K filings. *Journal of Business Research*, *106*(February 2018), 158–181. https://doi.org/10.1016/j.jbusres.2019.08.028

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y

Parker, L. D. (2007). Social and environmental accountability research. *Accounting, Auditing & Accountability Journal*, *18*(6), 842–860. https://doi.org/10.1108/09513570510627739

Pearce, J. A., & Zahra, S. A. (1992). Board Composition From a Strategic Contingency Perspective. *Journal of Management Studies*, *29*(4), 411–438. https://doi.org/10.1111/j.1467-6486.1992.tb00672.x

Peat, J., & Barton, B. (2005). *Medical Statistic: A guide to data analysis and critical*

appraisal. USA: Blackwell publishing Ltd. http://doi.org/http://dx.doi.org/10.1002/9780470755945.

Pérignon, C., & Smith, D. R. (2010). The level and quality of Value-at-Risk disclosure by commercial banks. *Journal of Banking and Finance*, *34*(2), 362–377. https://doi.org/10.1016/j.jbankfin.2009.08.009

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies*, *22*(1), 435–480. https://doi.org/10.1093/rfs/hhn053

Pfeffer, J. & Salancik, G. R. (1978). *The External Control of Organizations*. Stanford University Press. https://www.sup.org/books/title/?id=5889

Phillips, D. C., & Burbules, N. C. (2000). *Philosophy, theory, and educational research. Postpositivism and educational research. Lanham, MD, US: Rowman & Littlefield.*

Rajab, B., & Handley-Schachler, M. (2009). Corporate risk disclosure by UK firms: Trends and determinants. *World Review of Entrepreneurship Management and Sustainable Development, 5(3),* 224–243. https://doi.org/10.1504/WREMSD.2009.026801

Reed, W. R., & Ye, H. (2011). Which panel data estimator should I use? *Applied Economics*, *43*(8), 985–1000. https://doi.org/10.1080/00036840802600087

Rhodes, M. J., & Soobaroyen, T. (2010). Information asymmetry and socially responsible investment. *Journal of Business Ethics*, *95*(1), 151–151. https://doi.org/10.1007/s10551-009-0343-2

Robson, C. (2011). Real World Research: A Resource for Users of Social Research Methods in Applied Settings, (2nd Ed.). Sussex, A. *John Wiley and Sons Ltd*.

Roulstone, D. T. (1999). Effect of SEC financial reporting release No.48 on derivative and market risk disclosure. *Accounting Horizons*, *13*(4), 343–363. https://doi.org/10.2308/acch.1999.13.4.343

Ruland, W., Tung, S. & George, N. E. (1990). Factors associated with the disclosure of managers' forecasts. *Accounting Review*, *65*(3), 710–721. http://www.jstor.org/stable/247959

Saggar, R., Arora, N., & Singh, B. (2021). Gender diversity in corporate boardrooms and risk disclosure : Indian evidence. *Gender in Management: An International Journal.*, *37*(2), 182–201. https://doi.org/10.1108/GM-06-2020-0174

Saggar, R., & Singh, B. (2017). Corporate governance and risk reporting: Indian evidence. *Managerial Auditing Journal*, *32*(4–5), 378–405. https://doi.org/10.1108/MAJ-03-2016-

1341

Salem, I. H., Ayadi, S. D., & Hussainey, K. (2019). Corporate governance and risk disclosure quality: Tunisian evidence. *Journal of Accounting in Emerging Economies*, *9*(4), 567–602. https://doi.org/10.1108/JAEE-01-2019-0005

Samaha, K., Dahawy, K., Hussainey, K., & Stapleton, P. (2012). The extent of corporate governance disclosure and its determinants in a developing market : The case of Egypt. *Advances in Accounting*, *28*(1), 168–178. https://doi.org/10.1016/j.adiac.2011.12.001

Sánchez, I. M. G., Domínguez, L. R., & Álvarez, I. G. (2011). Corporate governance and strategic information on the internet: A study of Spanish listed companies. *Accounting, Auditing and Accountability Journal*, *24*(4), 471–501. https://doi.org/10.1108/09513571111133063

Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students. Pearson*.

Scott, W. R. (1995). Institutions and Organizations. *SAGE Publications, Thousand,Oaks.*

Sekome, N. B., & Lemma, T. T. (2014). Determinants of voluntary formation of risk management committees: Evidence from an emerging economy. *Managerial Auditing Journal*, *29*(7), 649–671. https://doi.org/10.1108/MAJ-02-2014-0998

Semper, D. C., & Beltrán, J. M. T. (2014). Risk disclosure and cost of equity: The Spanish case. *Contaduria y Administracion*, *59*(4), 105–135. https://doi.org/10.1016/S0186-1042(14)70157-3

Sepasi, S., Kazempour, M. & Mansourlakoraj, R. (2016). Ownership structure and disclosure quality: case of Iran. *Procedia Economics and Finance*, *36*, 108–112. https://doi.org/10.1016/S2212-5671(16)30021-1

Seta, A.T., & Setyaningrum, D. (2017). Corporate governance and risk disclosure: Indonesian evidence. *In Proc. 6th Int. Accounting Conference (IAC 2017)*, 37–41. https://doi.org/10.2991/iac-17.2018.7

Shivaani, M. V., Jain, P. K., & Yadav, S. S. (2019). Development of a risk disclosure index and its application in an Indian context. *Managerial Auditing Journal*, *35*(1), 1–23. https://doi.org/10.1108/MAJ-07-2016-1403

Singh, A. S. (2014). Conducting Case Study Research in Non-Profit Organisations. Qualitative Market Research: *An International Journal*, *17*, 77–84. https://doi.org/10.1108/QMR-04-2013-0024

Singhvi, S.S. & Desai, H. B. (1971). An empirical analysis of the quality of corporate

financial disclosure. *Accounting Review*, *46*(1), 129–138. https://www.jstor.org/stable/243894

Solomon, J.F., Solomon, A., Norton, S.D. & Joseph, N. L. (2000). A conceptual framework for corporate risk disclosure emerging from the agenda for corporate governance reform. *British Accounting Review*, *32*(4), 447–478. https://doi.org/10.1006/bare.2000.0145

Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, *87*(3), 355–374. https://doi.org/10.1016/B978-0-12-214850-7.50025-5

Sternberg, E. (1997). The Defects of Stakeholder Theory. *Corporate Governance: An International Review*, *5*(1), 3–10. https://doi.org/10.1111/1467-8683.00034

Suchman, M. C. (1995). Managing Legitimacy Strategic and Institutional Approaches AMR. *Academy of Management Review*, *20*(3), 571–610. https://doi.org/10.5465/amr.1995.9508080331

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Pearson.

Tahat, Y.A., Dunne, T., Fifield, S. & Power, D. M. (2016). The impact of IFRS 7 on the significance of financial instruments disclosure Evidence from Jordan. *Accounting Research Journal*, *29*(3), 241–273. https://doi.org/10.1108/ARJ-08-2013-0055

Talib, O. (2013). *Asas penulisan tesis, penyelidikan & statistik. Universiti Putra Malaysia Press, Serdang, Selangor. ISBN 9789673443352*.

Tan, Y., Zeng, C. C., & Elshandidy, T. (2017). Risk disclosures, international orientation, and share price informativeness: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, *29*(September), 81–102. https://doi.org/10.1016/j.intaccaudtax.2017.08.002

Tashakkori, A., & Teddlie, C. (2003). *Handbook of Mixed Methods in Social & Behavioural Research*. Sage.

Tauringana, V., & Chithambo, L. (2016). Determinants of risk disclosure compliance in Malawi: a mixed-method approach. *Journal of Accounting in Emerging Economies*, *6*(2), 111–137. https://doi.org/10.1108/JAEE-03-2014-0015

Taylor, G., Tower, G., & Neilson, J. (2010). Corporate communication of financial risk. *Accounting and Finance*, *50*(2), 417–446. https://doi.org/10.1111/j.1467-629X.2009.00326.x

Thatcher, R. W. (2010). Validity and reliability of quantitative electroencephalography. *Journal of Neurotherapy*, *14*(2), 122–152. https://doi.org/10.1080/10874201003773500

Torgler, B. & Valev, N. (2010). Gender and public attitudes toward corruption and tax

evasion. *Contemporary Economic Policy*, *28*(4), 554–568. https://doi.org/10.1111/j.1465-7287.2009.00188.x

Treisman, D. (2000). The causes of corruption: a cross-national study. *Journal of Public Economics*, *76*(3), 399–457. https://doi.org/10.1016/S0047-2727(99)00092-4

Ullmann, A. A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms". *Academy of Management Review*, *10*(3), 540–557. https://doi.org/10.5465/amr.1985.4278989

UNCTAD. (2017). *The role of disclosure in risk assessment & enhancing the usefulness of corporate reporting in decision-making*. https://unctad.org/system/files/official-document/ciiisard82_en.pdf

Unerman, J. (2000). Methodological issues reflections on quantification in corporate social reporting content analysis. *Accounting,Auditing and Accountability Journal*, *13*(5), 667–680. https://doi.org/10.1108/09513570010353756

Veltri, S. (2020). *Mandatory non-financial risk-related disclosure*. Springer International Publishing.

Verrecchia, R. E. (1983). Discretionary Disclosure. *Journal of Accounting and Economics*, *5*, 179–194. https://doi.org/10.1016/0165-4101(83)90011-3

Wahlen, J., Baginski, S., & Bradshaw, M. (2014). *Financial reporting, financial statement analysis and valuation. Nelson Education*.

Wallace, R., Naser, K. & Mora, A. (1994). The relationship between comprehensiveness of corporate annual reports and firm characteristics in Spain. *Accounting and Business Research*, *25*(97), 41–53. https://doi.org/10.1080/00014788.1994.9729927

Wangombe, D. K. (2013). Multi-theoretical perspective of corporate environmental reporting: A literature review. *Review of Integrative Business & Economics Research*, *2*(2), 655–671. http://hdl.handle.net/11071/3773

Wangombe, D. K. (2016). Stakeholder perceptions of the meaning and relevance of high quality corporate environmental reporting: evidence from Kenya. *International Journal of Critical Accounting*, *8*(5/6), 396. https://doi.org/10.1504/ijca.2016.081621

Warfield, T.D., Wild, J.J. & Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and Economics*, *20*(1), 61–91. https://doi.org/10.1016/0165-4101(94)00393-J

Watts, R. & Zimmerman, L. (1983). Agency problems, auditing and the theory of the firm:

some evidence. *Journal of Law & Economics*, *14*, 311–368. https://doi.org/10.1016/j.ribaf.2022.101715

Wooldridge, J. M. (2015). Introductory econometrics: A modern approach. In *Cengage learning.*

World Bank. (2010). Report on the observance of standards and codes (ROSC) Kenya", Accounting and Auditing, the World Bank Group. In *IMF Staff Country Reports*. https://www.worldbank.org/en/programs/rosc

World Economic Forum. (2018). *The Global Competitiveness Report*. www.weforum.org/gcr

Yatim, P. (2010). Board structures and the establishment of a risk management committee by Malaysian listed firms. *Journal of Management and Governance*, *14*(1), 17–36. https://doi.org/10.1007/s10997-009-9089-6

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, *40*, 185–211. https://doi.org/10.1016/0304-405X(95)00844-5

APPENDICES

Appendix I: Measurement of Quality of CRD

Author	Country (Period)	Theory	Sample	Measurement of Quality of CRD	Source
Beretta and Bozzolan (2004)	Italy, 2001	None	85 non- financial firms	CRD measured by three risk categories (company strategy, company characteristics and external environment) and semantic properties (economic sign, type of measure, outlook orientation). Method: quantitative (manual content analysis).	(FASB, 2001; ICAEW,2002 ; Bell et al., 1997)
Linsley and Shrives (2006)	UK, 2001	Attribution theory	79 FTSE non-financial firms	CRD measured by six risk categories (financial risk, operational risk, empowerment risk, information processing and technology risk, integrity and strategic risks) and semantic properties (nature of disclosure, time horizon and type of news). Method: quantitative (manual content analysis).	(ICAEW, 1997; Milne & Hackston, 1996)
Rajab and Handley-Schachler (2009)	UK, 1998-2004	Agency theory, political cost theory and signaling theory	52-non-financial firms listed	CRD measured by three risk categories (operational risks, environmental risk and strategic risk) and semantic properties (nature of evidence, type of news and news time-frame). Method: quantitative (manual content analysis).	(Linsley & Shrives, 2006)
Hassan (2009)	UAE, 2005	Institutional theory & signaling theory	49 financial and non-financial firms listed in Dubai financial market	CRD measured as quantitative and qualitative risk information. Method: quantitative (manual content analysis).	(Beretta & Bozzolan, 2004; Linsley & Shrives, 2006)
Pérignon and Smith (2010)	US, 1996-2005	None	10 largest international banks	CRD measured using value at risk characteristics, summary of value at risk summary, intertemporal comparison, daily value at risk figures, trading revenues, and back testing. Method: quantitative (manual content analysis).	(BCBS, 1996)
Oliveira et al. (2011)	Portugal, 2005	Agency theory, legitimacy theory & resources-based perspective.	42 non-financial firms listed in Euronext Lisbon market	Categorized CRD as financial risk and non-financial and included semantic properties (economic sign, type of measure, outlook and type of disclosure). Method: quantitative (manual content analysis).	(Abraham & Cox, 2007)
Miihkinen (2012)	Finland, 2005-2006	None	99 non-financial firms listed in the OMX Helsinki	CRD measured by five risk categories (strategic risks, operational risks, financial risks, damage risks and risk management) and quality indicators (quantity, coverage, depth and outlook profile. Method: quantitative (manual content analysis).	(Linsley & Shrives, 2006)
Miihkinen (2013)	Finland, 2005-2009	efficient market theory	Non-financial firms listed in Helsinki	CRD measured by five risk categories (strategic risks, operational risks, financial risks, damage risks and risk management) and quality indicators (quantity and coverage). Method: quantitative (manual content analysis).	(Linsley & Shrives, 2006)

Barakat and Hussainey (2013)	Europe, 2008-2010	agency theory, management entrenchment theory, legitimacy theory, resource dependence theory, and stake-holder theory	85 banks from 20 EU members	CRD measured using operational risk disclosure with 14 risk categories. Method: quantitative (manual content analysis).	(BCBS, 2006)
Ntim et al. (2013)	South Africa, 2002-2011	agency, legitimacy, institutional, resource-dependence, and stakeholder theories	50 non-financial firms listed in the Johannesburg Stock Exchange	CRD measured by three risk categories (financial risks, operational risks and strategic risks) or 50 CRD items and quality indicators (nature of information, type of information, outlook). Method: quantitative (manual content analysis).	(Linsley & Shrives, 2006;King Committee, 2002)
Mokhtar and Mellett (2013)	Egypt, 2007	proprietary cost, agency theory, stakeholder theory, political cost, signaling theory and legitimacy theory	105 non-financial companies listed Egyptian Exchange	CRD measured by six risk categories (financial risks, operational risks, empowerment risks, information processing and technology risks, integrity risks and strategic risks) and quality indicators (nature of information, type of information, outlook). s Method: quantitative (manual content analysis).	(Linsley & Shrives, 2006)
Abraham and Shrives (2014)	UK, 2002-2007	Proprietary & Institutional theory	Food Producers & processing sector, four companies	CRD categorized as general, company-specific and analyzed for meaning. Method: quantitative	(Abraham & Cox, 2007)
Hope et al. (2016)	USA, 2006-2011	Proprietary costs theory	A sample of 14,865 observations in 10-Ks	Developed measure of the degree of specificity in firms' risk-factor disclosures (Item 1A in the 10-K report) using computing algorithm. Method: quantitative	(Kravet & Muslu, 2013)
Alessandra et al. (2016)	Italy, 2008-2011	Agency theory and signaling theory	Sample of 17 SOEs	Used broad definition of risk formulated by (Linsley & Shrives, 2006). Used computer-based content analysis procedure to generate the risk disclosure score (DS).	(Kravet & Muslu, 2013)

Appendix II: Disclosure theories on Quality of CRD

Accounting Journals	"Quality" and "Risk Disclosure"	Corporate Risk Disclosure Theories								
		Agency	Resource	Signalling	Stakeholder	Legitimacy	Institutional	Proprietary cost	Political cost	Prospect
International Journal of Accounting	3	1	0	0	0	0	0	0	0	0
Accounting & Finance	1	0	0	0	0	0	0	0	0	0
Accounting and Business Research	3	0	0	0	0	0	0	0	0	0
Advances in Accounting	1	0	0	0	0	0	0	0	0	0
International Journal of Disclosure and Governance	2	0	0	0	0	1	0	0	0	0
Journal of Accounting in Emerging Economies	1	1	0	1	1	1	0	0	1	0
Journal of Applied Accounting Research	3	3	0	2	0	0	0	0	0	0
Journal of International Accounting Research	1	0	0	0	0	0	0	0	0	0
Managerial Auditing Journal	9	7	2	5	5	6	4	2	1	0
Review of Accounting Studies	3	0	0	0	0	0	0	0	0	1
Spanish Accounting Review	1	1	0	1	0	0	0	1	1	0
British Accounting review	2	1	0	0	0	1	1	1	0	0
Journal of Accounting Literature	1	0	0	0	0	0	0	0	0	0
Accounting Forum	1	0	1	0	0	0	0	0	0	0
Journal of International Accounting, Auditing and Taxation	1	1	0	0	0	0	0	0	0	0
International Journal of Accounting, Auditing and Performance Evaluation	1	1	0	0	1	0	0	0	0	0
Total	**34**	**16**	**3**	**9**	**7**	**9**	**5**	**4**	**3**	**1**
Non-Accounting journals										
European Business Review	1	1	1	0	0	1	1	0	0	0
International Review of Financial Analysis	3	3	2	1	2	2	1	0	0	0
Journal of Banking Regulation	1	0	0	1	0	0	0	0	0	0
Journal of Financial Management, Markets and Institutions	1	1	0	1	0	1	0	1	0	0
Journal of Governance and Regulation	1	0	0	0	0	0	0	0	0	0
Public Money & Management	1	1	0	1	0	0	0	0	0	0
The Quarterly Review of Economics and Finance	1	1	0	0	0	1	1	0	0	0
Journal of International Financial Markets, Institutions and Money	1	0	0	0	0	0	0	0	0	0
Journal of Multinational Financial Management	1	0	0	0	0	1	0	0	0	0
Journal of Banking and Finance	1	0	0	0	0	0	0	0	0	0
Financial analyst Journal	1	0	0	0	0	0	0	0	0	0
The Journal of Operational Risk	1	0	1	0	0	0	0	0	1	0
World Review of Entrepreneurship Management and Sustainable Development	1	0	1	0	0	0	0	0	1	0
SSR Electronic Journal	1	0	0	0	0	0	0	0	0	0
International Review of Economics and Finance	1	0	0	0	0	0	0	0	0	0
Total	**17**	**7**	**5**	**4**	**2**	**6**	**3**	**1**	**2**	**0**

Appendix III: CRD guidelines and reforms

Guidelines	Context	Scope	Section	Quality a Attributes
Financial Reporting Release (FRR)	USA	Disclosure of major risks/uncertainties facing the company and mitigation measures	Management Discussion and Analysis	Comprehensive, complete and free from bias
International Financial Reporting Standard 7	UK	Disclosure risks arising from financial instruments (qualitative and quantitative risks) and mitigation measures	Narrative	Relevance, faithful representation, comparability, verifiability, understandability and timeliness
German Accounting Standards Board 5	German	Disclosure of qualitative and quantitative risks, classified into risk categories, the risk policy and risk treatment measures.	Risks & Opportunities or Outlook	Reliable & relevant
Australian Securities and Investments Commission	Australia	Disclosure of the risks that could affect the entity's achievement of the financial prospects disclosed, disclosure of sustainability risks.	Operating and Financial Review	Clear, concise and effective manner.
Global Reporting Initiatives	Netherlands	Disclosure of sustainability risks and opportunities according to their relevance for long-term organizational value (quantitative and qualitative) and treatment measures	Sustainability Report	Accurate, balance, clarity, comparability, reliability, timeliness
King Report II	South Africa	Risk definition, risk identification, and classification of risks (financial & non-financial) and risk governance.	Corporate Governance Report	Relevant, timely, accurate, and complete
Integrated Reporting Guideline Council	England& Wales	disclosure of specific risks and opportunities that affect the organization's ability to create value over the short, medium and long term, and how is the organization dealing with them	Integrated report	Strategic focus, future orientation, connectivity, materiality, conciseness, reliability, completeness, consistency and comparability
Financial Reporting Council	England	Principal risk/ uncertainties	Strategic report	fair, balanced, understandable, concise, forward-looking, entity-specific, link related

Appendix IV: Quality of CRD Framework

Corporate Risk Disclosures (CRD) Index			
Corporate Risk Disclosures	**Corporate Risk Disclosures (CRD) Items**	**Range of scores**	**Total score per theme**
Financial Risk Disclosures	1. Interest rate	0-10	100
i) Financial risks	2. Exchange rates	0-10	
	3. Commodity prices	0-10	
	4. Liquidity	0-10	
	5. Credit/default	0-10	
	6. Capital adequacy/insolvency	0-10	
	7. Equity prices	0-10	
	8. Financial derivatives/instrument	0-10	
	9. Executive compensation/bonus/ pension commitments	0-10	
	10. Disclosures to help users understand financial risks	0-10	
Non-Financial Risk Disclosures	11. Competition/proprietary/copyright	0-10	
ii) Business risks	12. Business processes and procedures/operations	0-10	
	13. Technology/information technology	0-10	
	14. Health and safety	0-10	
	15. Environment	0-10	
	16. Reputation/goodwill/image/brand name	0-10	
	17. Compliance	0-10	
	18. Legal	0-10	
	19. Sourcing/raw material/Supply chain	0-10	
	20. Production/product development	0-10	
	21. Marketing/customer satisfaction/boycott	0-10	
	22. Social contribution/community support	0-10	
	23. Internal audit and control	0-10	
	24. Human resources/employee/labour turnover/unrest	0-10	
	25. Integrity/management and employee fraud	0-10	
	26. Governance/leadership and management	0-10	
	27.Non/financial disclosure/communication	0-10	
	28. Off balance sheet/contingent assets and liabilities	0-10	
	29.. Product/service failure	0-10	
	30. Asset Portfolio risk	0-10	
	31. Contract duration	0-10	
	32.Concentration risk (product/customer, region)	0-10	
	33.Diversification (product/service, location)	0-10	
	34. Counterparty	0-10	
	35. Business ethics/corruption	0-10	
	36. Stock/service obsolescence and shrinkage	0-10	
	37. Disclosures to help users understand business	0-10	280
	38.Disclosure of risk management section	0-1	
	39. Disclosure of risk mgt. policies/board responsibilities	0-1	
	40. Disclosure of risk governance/committee existence	0-1	
	41. Disclosure of risk committee composition	0-1	
	42. Disclosure on existence of ERM	0-1	
	43. Risk committee chairperson independence	0-1	
	44. Disclosure of risk committee meetings attendance	0-1	

	45. Disclosure of risk committee remittances	0-1	
	46. Disclosure of risk committee membership	0-1	
	47.Absence of threats & opportunities under Business Review section	0-1	
Non-Financial Risk Disclosures	48. Sovereign/politics/election violence	0-10	150
iii)Strategic Risks	49. Regulation	0-10	
	50. Taxation	0-10	
	51. GDP growth/market demand/aggregate demand	0-10	
	52. Unemployment rate	0-10	
	53 Inflation rate	0-10	
	54. Natural disasters/terrorism/pandemic/Locust invasion	0-10	
	55. Money supply/quantitative easing	0-10	
	56. Oil price	0-10	
	57. Public/budget deficit	0-10	
	58.Industry/Market share	0-10	
	59.Performance measurement	0-10	
	60. Management of growth	0-10	
	61. New alliances/joint venture/partnership	0-10	
	62. Disclosures to help users understand strategy risks	0-10	
Total	**CRD Items**		530

Procedure of scoring for un-weighted index

0: Risk item not disclosed.

1: Risk item disclosed.

Procedure of scoring for weighted index

0: No risk disclosure

1: Risk disclosure on past information

2: Risk disclosure on past, future looking information

3: Risk disclosure on past, future, negative information

4: Risk disclosure on past, future, negative, positive information

5: Risk disclosure on past, future, negative, positive, qualitative information

6: Risk disclosure on past, future, negative, positive, qualitative, quantitative information

7: Risk disclosure on past, future, negative, positive, qualitative, quantitative, general information

8: Risk disclosure on past, future, negative, positive, qualitative, quantitative, general, specific information

9: Risk disclosure on past, future, negative, positive, qualitative, quantitative, general, specific, not linked information

10: Risk disclosure on past, future, negative, positive, qualitative, quantitative, general, specific, not linked information, linked information

Appendix V: Semi-structured interview guide for internal stakeholders

The following broad open-ended questions were used to guide the discussion.

1. Provide interviewees with the CRD definition proposed in the study to comment.
2. Would you like to talk about the level of CRD transparency and disclosure in your company?
3. To what extent do you believe the current legal system supports CRD?
4. How would you assess the relationship between firm-specific factors and CRD?
    - Firm size
    - Leverage
    - profitability
    - Liquidity
    - Firms growth
    - Operating risk
    - Capital expenditure

5) How would you assess the relationship between board characteristics and CRD?
    - Board activity
    - Board size
    - Board gender diversity
    - Board independence

6) How would you assess the relationship between ownership structure and CRD?
    - Managerial ownership
    - Retail ownership
    - Foreign ownership
    - Block ownership
    - Government ownership

7) Discuss your companies experience in engaging in CRD.
8) In your opinion, is CRD of poor/ high quality?

Appendix VI: Semi-structured interview guide for external stakeholders

The following broad open-ended questions were used to guide the discussion.

1. Provide interviewees with the CRD definition proposed in the study to comment. (Probe more on disclosure items not included in the proposed definition).
2. What is your understanding of high-quality CRD and how it can be achieved in Kenya?
3. What is your perception of the level of high-quality CRD in Kenya?
4. What, in your opinion, the significance of the proposed definition in the Kenyan context?
5. Comment on the level of CRD in Kenya and why do Kenyan companies engage/not engage in CRD.
6. In your opinion so some companies fail to report on the risk disclosure.
7. In your opinion, is CRD of poor/ high quality?

Appendix VII: Corporate Governance Quality

CGQ sub-categories	**Measurement for coding the CGQ Index**
Audit Committee	
1.Financial expertise in AC	1 if at least one member in the AC has financial expertise, 0 if otherwise
2.Number of independent non-executive directors in the AC	1 if the number of independent directors is greater than 2, 0 if otherwise
Board Structure	
3.Number of board members	1 if the number of board members is at least 7, 0 if otherwise
4.Frequency of board meeting	1 if the board held at least 4 meetings in a year, 0 if otherwise
5.Number of independent non-executive directors in the AC	1 if the number is less than 4, 0 if otherwise
6.Tenure of independent directors	1 if tenure is at least 3 years, 0 if otherwise
Board diversity	
7.Number of women on the board	1 if there are at least 2 women on the board, 0 if otherwise
8.Number of nationalities in the board	1 if there is at least one nationality represented in the board, 0 if otherwise

Appendix VIII: Stationarity test, Pesaran and Shin

Panel Unit root tests	Level		1st difference	
Variables	**Statistic**	**Probability**	**Statistic**	**Probability**
CRDIW	4.885	0.030		
CRDUW	4.002	0.032		
FS	-2.889	0.002*		
LEV	-5.317	0.000*		
ROE	-3.603	0.000*		
LIQ	-3.967	0.000*		
SGR	-3.468	0.000*		
OPR	-3.011	0.001*		
CPX	-4.679	0.000*		
BOA	-10.000	0.000*		
BOS	-7.900	0.000*		
BGD	1.035	0.850*		
BND	-5.879	0.000*		
MOW	2.131	0.984	-2.054	0.020**
ROW	-1.122	0.131*		
FOW	-30.614	0.000*		
BLW	-1.073	0.142	-3.454	0.000*
GOW	1.379	0.916	-1.742	0.0108**
BIG4	-0.497	0.000*		
CGQ	-7.100	0.000*		
CRL	-0.755	0.000*		
IND	-0.500	0.000*		

Significance 1%*, 5%**

Appendix IX: Sample of Non-financial firms Listed in Kenya

	AGRICULTURAL
1	Eaagads Ltd.
2	Kapchorua Tea Co. Ltd.
3	Kakuzi
4	Limuru Tea Co. Ltd.
5	Rea Vipingo Plantations Ltd.
6	Sasini Ltd.
7	Williamson Tea Kenya Ltd.
	AUTOMOBILES & ACCESSORIES
8	Car & General (K) Ltd.
9	Sameer Africa Ltd.
10	Marshalls (E.A) Ltd.
	COMMERCIAL & SERVICES
11	Express Ltd
12	Kenya Airways Ltd.
13	Nation Media Group
14	Standard Group Ltd.
15	TPS Eastern Africa (Serena) Ltd.
16	Scangroup Ltd.
17	Uchumi Supermarkets Ltd.
18	Hutchings Biemer Ltd.
19	Longhorn Publishers Ltd.
20	Atlas Development and Support Services
21	Deacons (East Africa) Plc
22	Nairobi Business Ventures Ltd.
	CONSTRUCTION & ALLIED
23	Athi River Mining
24	Bamburi Cement Ltd.
25	Crown Berger Ltd
26	East Africa Cables Ltd.
27	East Africa Portland Cement Ltd.

	ENERGY & PETROLEUM
28	Kenol Kobil Ltd.
29	Total Kenya Ltd.
30	KenGen Ltd.
31	Kenya Power & Lighting Co. Ltd.
32	Umeme Ltd
	INVESTMENT
33	Olympia Capital Holdings
34	Centum Investment Co. Ltd.
35	Trans-Century Ltd.
36	Home Afrika Ltd
37	Kurwitu Ventures
38	Nairobi Securities Exchange Ltd.
	MANUFACTURING & ALLIED
39	B.O.C Kenya Ltd
40	British American Tobacco Kenya Ltd.
41	Carbacid Investments Ltd
42	East African Breweries Ltd.
43	Mumias Sugar Co. Ltd
44	Unga Group Ltd.
45	Eveready East Africa Ltd.
46	Kenya Orchards Ltd.
47	A. Baumann Co. Ltd
48	Flame Tree Group Holdings Ltd.
	TELECOMMUNICATION & TECHNOLOGY
49	Safaricom Ltd.
	REAL ESTATE INVESTMENT TRUST
50	Stanlib Fahari I-REIT
	EXCHANGE-TRADED FUND
51	New Gold Issuer (RP) Ltd

Appendix X: Disclosure Frequency among Listed Non-Financial Firms in Kenya

Disclosure Category	Corporate Risk Disclosure Item	% of companies	overral Rank
Financial Risk Disclosures	1. Interest rate	83.3%	7
i) Financial risks	2. Exchange rates	83.5%	6
	3. Commodity prices	60.3%	25
	4. Liquidity	83.6%	5
	5. Credit/default	75.7%	15
	6. Capital adequacy/insolvency	80.8%	10
	7. Equity prices	27.2%	44
	8. Financial derivatives/instrument	75.6%	16
	9. Executive compensation/bonus/ pension commitments	81.1%	9
	10. Disclosures to help users understand financial risks	23.2%	46
Non-Financial Risk Disclosures:	11. Competition/proprietary/copyright	66.7%	24
ii) Business risks	12. Business processes and procedures/operations	74.6%	18
	13. Technology/information technology	55.5%	26
	14. Health and safety	79.5%	13
	15. Environment	73.8%	19
	16. Reputation/goodwill/image/brand name	85.3%	4
	17. Compliance	80.7%	11
	18. Legal	82.5%	8
	19. Sourcing/raw material/Supply chain	35.8%	38
	20. Production/product development	45.1%	33
	21. Marketing/customer satisfaction/boycott	89.0%	2
	22. Social contribution/community support	90.4%	1
	23. Internal audit and control	88.3%	3
	24. Human resources/employee/labour turnover/unrest	79.0%	14
	25. Integrity/management and employee fraud	45.5%	31
	26. Governance/leadership and management	80.6%	12
	27.Non/financial disclosure/communication	73.1%	20
	28. Off balance sheet/contingent assets and liabilitie	17.6%	51
	29. Product/service failure	11.6%	54
	30. Asset Portfolio risk	44.4%	34
	31.Contract duration risk	2.6%	62
	32. Concentration risk (product/customer,region)	6.2%	60
	33.Diversification (product/service,location)	10.3%	55
	34. Counterparty	9.7%	58
	35. Business ethics/corruption	21.8%	47
	36. Stock/service obsolescence and shrinkage	29.5%	43
	37. Disclosures to help users understand business	16.7%	52
	38.Disclosure of risk management section	48.7%	28
	39. Disclosure of risk mgt. policies/board responsibilities	48.7%	28
	40. Disclosure of risk governance/committee existence	53.8%	27
	41. Disclosure of risk committee composition	38.5%	35
	42. Disclosure on existence of ERM	21.0%	48
	43. Risk committee chairperson independence	48.7%	28
	44. Disclosure of risk committee meetings attendance	38.5%	35
	45. Disclosure of risk committee remittances	25.6%	45
	46. Disclosure of risk committee membership	38.5%	35
	47.Absence of threats & opportunities under Business Review	5.6%	61
Non-Financial Risk Disclosures:	48. Sovereign/politics/election violence	35.2%	39
iii)Strategic Risks	49. Regulation	70.2%	22
	50. Taxation	32.7%	41
	51. GDP growth/market demand/aggregate demand	34.6%	40
	52. Unemployment rate	6.8%	59
	53 Inflation rate	30.2%	42
	54. Natural disasters/terrorism/pandemic/Locust invasion	45.4%	32
	55. Money supply/quantitative easing	20.0%	50
	56. Oil price	20.5%	49
	57. Public/budget deficit	10.0%	57
	58. Industry/Market share	72.4%	21
	59.Performance measurement	75.1%	17
	60. Management of growth	70.1%	23
	61. New alliances/joint venture/partnership	10.2%	56
	62. Disclosures to help users understand strategy risks	15.4%	53

Appendix XI: Results of Lagged weighted & unweighted CRD determinants

Variable	Lagged CRDIW		Lagged CRDIU	
	Coefficient	Prob.	Coefficient	Prob.
C	-11.09	0.011	-7.94	0.027
FS	0.52	0.000	0.70	0.000
LEV	0.03	0.022	0.05	0.003
ROE	-0.10	0.774	0.59	0.004
LIQ	0.04	0.996	-0.03	1.000
SGR	2.18	0.024	2.58	0.002
OPR	1.31	0.001	-1.34	0.005
CPX	-1.93	0.527	-0.69	0.680
BOA	1.33	0.041	-0.20	0.831
BOS	1.02	0.466	0.10	0.574
BGD	-2.68	0.400	-2.69	0.084
BND	0.04	0.095	0.43	0.774
MOW	-0.02	0.985	-0.12	0.131
ROW	0.01	0.816	-0.02	0.487
FOW	0.02	0.024	0.02	0.080
BLW	-0.09	0.002	-0.09	0.016
GOW	-0.18	0.346	0.11	0.515
BIG4	1.01	0.556	0.27	0.888
CGQ	2.44	0.089	3.63	0.031
CRL	0.26	0.861	0.72	0.500
IND	1.22	0.357	3.29	0.008
R-squared		0.44		0.47
Adj. R-squared		0.33		0.38
F-statistic		4.28		4.83
Prob(F-statistic)		0.00		0.00

Appendix XII: Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **587619**

Date of Issue: **09/April/2020**

RESEARCH LICENSE

This is to Certify that Mr.. Erastus Musembi Mbithi of Strathmore University, has been licensed to conduct research in Nairobi on the topic: Determinants of High Quality Corporate Risk Disclosure Among Listed Companies in Kenya for the period ending : 09/April/2021.

License No: **NACOSTI/P/20/4750**

587619

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix XIII: Certificate of Editing

BE STILL COMMUNICATIONS
For effective communication solutions

landamasuku@gmail.com
+27835841854; +27618043021

Professional EDITORS Guild

CERTIFICATE OF EDITING

This document certifies that a copy of the thesis whose title appears below was edited for proper English language usage, grammar, punctuation, spelling, and overall style by Dr Nhlanhla Landa whose academic qualifications and professional affiliation appear in the footer of this document. The research content and the author's intentions were not altered during the editing process.

TITLE: HIGH-QUALITY CORPORATE RISK DISCLOSURE AND DETERMINANTS AMONG LISTED NON-FINANCIAL FIRMS IN KENYA

AUTHOR: MBITHI, ERASTUS MUSEMBI

Note: The edited work described here may not be identical to that submitted. The author, at their sole discretion, has the prerogative to accept, delete, or change amendments made by the editor before submission. The completeness and accuracy of the reference list remains the responsibility of the client and their supervisor(s). Equally, the overall quality of the document is the responsibility of the client.

DATE: 10 January 2022

EDITOR'S COMMENT

The author was advised to effect suggested corrections in regards to clarity of terms, referencing style, consistency in structure and logic, and expression. A suggestion was also made to improve the title of the study.

Signature

PhD Applied Linguistics (UFH), MA Applied Linguistics (MSU), BA (Honours) English and Communication (MSU)
Professional Membership: A member of the Professional Editors Guild, South Africa

Appendix XIV: Similarity Report

Curigional

Document Information

Analyzed document	HQCRD THESIS JANUARY 2022.doc (D125253883)
Submitted	2022-01-17T11:51:00.0000000
Submitted by	
Submitter email	eraz_msb@yahoo.com
Similarity	5%
Analysis address	library.strath@analysis.urkund.com

Sources included in the report

W	URL: https://shura.shu.ac.uk/29032/7/Hofinger_2021_DBA_RegulatoryRiskDisclosure.pdf Fetched: 2022-01-16T14:45:25.4170000	5
W	URL: https://www.researchgate.net/publication/322040198_Risk_reporting_A_review_of_the_literature_and_implications_for_future_research Fetched: 2019-10-09T23:06:49.2700000	4
SA	**khaoula beltaief analyse.docx** Document khaoula beltaief analyse.docx (D109628706)	20
SA	**Thesis nadia version finale.docx** Document Thesis nadia version finale.docx (D23814769)	14
SA	**ISSALURKUND.doc** Document ISSALURKUND.doc (D20948966)	2
SA	**REAR_2019_0339_Risk_Disclosure_Review.pdf** Document REAR_2019_0339_Risk_Disclosure_Review.pdf (D59096515)	9
SA	**soheila khaledi.Thises.pdf** Document soheila khaledi.Thises.pdf (D11341264)	8
SA	**2168743_ACCFIN5008P_Dissertation and Research Methods.docx** Document 2168743_ACCFIN5008P_Dissertation and Research Methods.docx (D21434142)	4
SA	**Revised_Ridhima Saggar Dept of Commerce CHAPTER 7.docx** Document Revised_Ridhima Saggar Dept of Commerce CHAPTER 7.docx (D37027561)	1
SA	**Revised_Ridhima Saggar Dept of Commerce CHAPTER 2.docx** Document Revised_Ridhima Saggar Dept of Commerce CHAPTER 2.docx (D37027556)	3
W	URL: http://www.virtusinterpress.org/IMG/pdf/COC__Volume_14_Issue_2_Winter_2017_Continued_2_1_.pdf Fetched: 2021-07-16T20:50:53.5430000	12
SA	**REAR_2018_0030_Board_Composition.pdf** Document REAR_2018_0030_Board_Composition.pdf (D35054087)	13

1/169