

**BOARD DIVERSITY, INTERNATIONAL FINANCIAL REPORTING
STANDARDS ADOPTION, LEGAL ENFORCEMENT AND
ACCOUNTING QUALITY OF LISTED FIRMS AT THE EAST
AFRICAN COMMUNITY SECURITIES' EXCHANGES**

**BY
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2022

DECLARATION

I, the undersigned, declare that, with the exception of the properly cited portions, this PhD research thesis is entirely my own, and that it has never been submitted for any academic award to this or any other university, college or any other institution of higher learning.

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DEDICATION

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LIST OF ABBREVIATIONS AND ACRONYMS

AQ:	Accounting Quality
BOD:	Board of Directors
CFO:	Chief Financial Officer
CESR:	Committee of European Securities Regulators
CMA:	Capital Markets Authority
CMC:	Cooper Motors Cooperation
DSE:	Dar es Salam Stock Exchange
EAC:	East African Community
EASRA:	East Africa Securities Regulatory Authority
EPS:	Earnings per Share
ERC:	Earnings Response Coefficient
ESOP:	Executive Share Option Plans
FRQ:	Financial Reporting Quality
GAAPs:	Generally Accepted Accounting Principles
IAS:	International Accounting Standards
IASB:	International Accounting Standards Board
ICPAK:	Institute of Certified Public Accountants of Kenya
IFRS:	International Financial Reporting Standards
IPO:	Initial Public Offering
NSE:	Nairobi Securities Exchange
ROTCE:	Rwanda over the Counter Exchange
RSE:	Rwanda Stock Exchange
UET:	Upper Echelons Theory
USE:	Uganda Securities Exchange
WGI:	World Governance Index

ABSTRACT

In the recent past globally there has been a push to ensure diversity in representation across gender, age, nationalities among other diversity traits. For corporates, board diversity ensures heterogeneity of thoughts in boards enhancing the monitoring roles of a board which is expected to improve firm outcomes including accounting quality through financial reports. Financial reporting quality is likely to increase if financial reporting standards are adopted in an environment with strong enforcement measures. However, studies on board diversity, IFRS adoption and accounting quality have returned mixed findings. The main objective of the study was to evaluate whether there is association between diversity of boards, the application of IFRS, legal enforcement, and the accounting quality of companies quoted on East African equity markets. Accounting quality was assessed using indicators such as earning management, financial reporting value relevance, and financial information's fundamental qualitative qualities. IFRS adoption was assessed using an IFRS compliance score sheet developed from IFRS disclosure checklist. Legal enforcement was assessed using WGI measures of regulatory quality and the rule of law. Blau Index and covariance were used to determine board diversity. Theoretically, the study was anchored on the upper echelon's theory, which establishes the impact of senior executives' traits on firm outcomes, agency theory highlights the monitoring responsibility of directors and information asymmetry theory which provides mechanisms guiding finance disclosures by firms. The study was conducted using a descriptive research approach and the positivist research philosophy. 53 listed firms provided secondary data drawn from Kenya, Uganda, Tanzania and Rwanda for a period of 8 years from 2013 to 2020. Descriptive statistics was utilized to gain insights from the research data. Diagnostics tests were conducted and the models used were found to be robust. Research models were tested using regression analysis. Baron and Kenny's (1986) mediating and moderating tests were applied. The findings show that board diversity significantly influenced the quality of accounting information. IFRS adoption mediated the association of board diversity and the accounting quality. Legal enforcement significantly moderated the relationship between board diversity and accounting quality. The study established a joint significant effect of IFRS adoption and legal enforcement on the accounting quality of listed firms in the East Africa securities exchanges. The research contributes to the existing body of knowledge on board diversity, adoption of IFRS, and quality of accounting, specifically it documents findings for East African nations which had been given minimal attention by prior studies. The study recommends that the financial markets and the accounting profession regulators need to develop guidelines such as allocation of specific quotas to women and youth to enhance board diversity during board composition and enhancement of financial disclosures by listed firms in East Africa. In addition, East African countries need to enhance adherence to the rule of law and improve on the quality of their regulations by developing strict punishment mechanisms for non-compliance to the laid rules.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Internationally, the desire to ensure fair representation of the social demography, gender, religion, age, nationality and education among other traits has been gaining traction with aim of achieving equity and cohesion in the society. Board diversity ensures heterogeneity of thoughts in boards enhancing the monitoring roles of a board. A diverse board in representation is expected to check itself due to the various interests represented in it therefore reducing manipulation of earnings (Klein, 2002). Financial reports target to provide the highest quality information which is necessary for decision making by its users. Quality of financial reporting refers to how usable financial data is in making decisions. International financial reporting standards prescribe the minimum disclosures required in order to ensure quality financial reporting (Leuz et al., 2003). Adoption and enforcement of IFRS serves as a monitoring tool to ensure financial reporting framework is complied with; mitigates against infringements; protects investor interests and improve transparency in financial reporting. The emergence of accounting scandals has enhanced demand for transparency in financial reporting improving accounting quality through improving governance, application of IFRS and strengthening the legal mechanisms in financial reporting (Lang & Lundholm, 2000).

According to Hambrick and Mason's (1984) who developed the Upper Echelons Theory (UET), the board has an impact on organizational decisions, it provides that personal trait influences choices and decisions (Goel & Thakor, 2008). Board and ownership structures have been critical in monitoring activities of the managers, helping to align the management

interest and that of the firm's owners' (Fama & Jensen, 1983 and Jensen & Meckling, 1976). Policeman theory developed by Hayes et al. (1999), provides that auditors oversight over financial reporting to check for accuracy and fraud. To explain the impact of board diversity, effect of adopting International Financial Reporting Standards, and legal enforcement on accounting reports quality, the current study relied on upper echelons theory; agency theory; the information asymmetry paradigm, and the policeman hypothesis.

Board composition in many jurisdictions is embracing diversity to enable inclusivity. Diverse boards are heterogeneous in their composition and are expected to restrict earnings management (Klein, 2002). Effect of diversity on corporate governance outcomes is inconclusive due to economic differences, use of different methodologies and differing diversity measures applied (Rhode & Packel, 2014). Adoption of IFRS constrains management of earnings through strict reporting guidelines ensuring quality reporting (Barth et al., 2008; Saudiye, 2012). The benefits of adopting Financial Reporting Standards (IFRS) are, however, dependent on current legal enforcement power (Khanaga, 2011). This therefore creates a need for more empirical research to bring out the effect of country-specific factors like legal enforcement and how they affect the quality of financial disclosures by firms. Theoretically, a diverse board of a company applying IFRS in an environment with strong legal framework should report high accounting quality. For the current study, IFRS adoption mediates the relation between diversity in boards and accounting quality while the legal enforcement mechanisms was the moderator variable on the association of diversity in boards and quality of accounting information which is reported by firms in EAC.

Listed firms in East Africa are guided by various corporate governance codes which implore on companies to uphold the best practices in the management and reporting of their

results. Despite the stringent legal requirements, there has been a number of corporate mismanagements as witnessed in Uchumi, Mumias Sugar, Kenya Airways and CMC Kenya in Kenya, Greenland, International Credit, and Cooperative banks in Uganda have resulted in suspension of listing and great erosion of shareholder wealth (Okiro, 2014; Iraya et al., 2015). Key corporate governance issues raised in these cases relate to financial reporting where the management of these firms was accused of misrepresentation of financial information. Empirically in Kenya, board diversity affects the quality of financial information that is reported (Omoro, 2014). Additionally, there has been efforts to have diversity; specifically, gender, on appointments by public entities while private firms have been encouraged to embrace diversity in management of their operations. Theoretically, a diverse board where IFRS has been adopted and in an environment where legal mechanisms are strong is expected to report high quality financial statements. However, for listed enterprises in the EAC, the influence of diversity on corporate boards on the integrity of accounting disclosures is yet to be thoroughly addressed experimentally.

1.1.1 Board Diversity

Diversity can be defined as the disparity, separation and variability of the unit members (Harrison & Klein, 2007). Diversity may be explained as the differences in opinion or position amongst the unit members due to their attitudes and values. Diversity, as a variety is represented by differences in relation to category or kind in relation to knowledge, experience and information among the members of an entity or unit. Jackson et al. (2003) defined diversity as the distribution of individual characteristics and traits of the independent member of a unit of work. Diversity of boards therefore relates to boards having heterogenous membership in respect to: gender; age; race; nationality among other traits. Diversity can mainly be generalized into two, demographic and cognitive:

demographic diversity are the observable traits defined as per ethnicity, race, age, religion, education level, functional background, director tenure and gender while cognitive diversity relates to variations in personality and style of thinking. The current study analyzes demographic traits of the board.

Diversity in boards is assessed on the observable traits of the directors. Diversity benefits include: improved decision making through the array of knowledge available; overcoming group thinking and premature consensus; and the attainment of the desired social value of equality. Diversity may lead to less effectiveness in organizations, less sharing of information, lack of cohesion and cooperation among groups. Use of diversity quotas more than experience consideration may negatively affect performance. Effect of diversity on firm outcomes has been analyzed giving inconclusive results (Rhode & Packel, 2014). Director's governance effectiveness is contingent on their tenure as directors with the highest effectiveness recorded by directors with tenures of more than 7 years (Brown, et al., 2017). The effect of functional diversity of the top management teams on firm outcomes have returned inconsistent empirical results (Cannella et.al., 2008). Directors with accounting background serving as finance experts in boards enhance accounting quality and market efficiency (Huang, et al., 2016). Directors of foreign nationalities are more independent than the local directors and such firms report higher quality information (Ruigrok, et al., 2007). Further, directors drawn from diverse nationalities enhances firm performance when controlling for institutional, firm level, cultural and the board characteristics together with nationalities of directors (Delis, et al., 2017).

Empirically, demographic diversity has been analyzed using observable traits like age and gender among others while cognitive diversity has been analyzed in respect to personality

traits (Hambrick & Mason, 1984). Based on the Upper Echelons Theory, firm outcomes manifest a reflection of its board and its senior management traits (Finkelstein et al., 2008 and Hambrick & Mason, 1984). The experience, skills and expertise of a board significantly affect the financial information quality reported by firms (Dechow et al., 1995; Davidson et al., 2005; Klein, 2002).

1.1.2 International Financial Reporting Standards Adoption

The International Financial Reporting Standards (IFRS) represent a set of high-quality accounting standards that are globally accepted and specify how financial statements and transactions should be prepared (IASB, 2010). IFRS adoption is the application of IFRS as a base for preparing financial reports, and it can be done early or mandatorily. It can either be mandatory adoption or voluntary. Mandatory adoption gives no choice to firms since the local accounting body has issued guidelines making the standards applicable, thus a legal requirement. Voluntary adoption refers to a situation where a firm elect to apply accounting standards after issuance but before their mandatory effective date (King'wara, 2015). Accounting Standards prescribe: recognition criteria for expenses, liabilities, assets and incomes; how to measure such items; their presentation in financial reports; and related disclosures. The IASB mandates that businesses present the balance sheets, the statement of changes in equity, the cash flow statement, and the notes to the aforesaid statements, in addition to the statement of comprehensive incomes, which detail the accounting policies that formed the basis of preparing the financial statements, among other things (Pacter, 2015).

The need for accounting standard convergence arose in the 1950s as a result of increased cross-border activity. The formative efforts focused on unification upto the 1990s, when standards harmonization was changed by the consolidation approach, which entailed

developing standards that are of high-quality that are anticipated to be beneficial for financial markets worldwide (King'wara, 2015). The International Accounting Standards Committee (IASC), founded in 1973, produced the first international accounting standards in 1975. The IASC was restructured in 2001 into the current International Accounting Standards Board (IASB), that was entrusted with producing new standards among other things. In September 2002, the International Accounting Standards Board (IASB) and the United States Financial Accounting Standards Board (FASB) signed the Norwalk Agreement, providing much needed boost to IFRS implementation. The two organizations agreed to collaborate on creating high-quality standards of accounting which are applicable to both domestic and overseas reporting. As a consequence, the collaborative operation was expanded to include both IFRS, which is based on principles, and US GAAP, which is more rules-based. As a result, the boards agreed to build a new unified Conceptual Framework on which accounting standards would be developed (IASB, 2010). International accounting standards (IAS) experienced a significant evolution leading to harmonization of accounting standards, release and adoption of broad based IFRS which replaced the IAS, which had several shortcomings, from start of the millennium (Capkum et al., 2016).

Early adoption of IFRS provides firms with incentives to increase transparency attraction of capital, while late adopters of IFRS (Mandatory adopters) lacked the incentives for transparent financial reporting which creates a room for earnings management in order for such firms to raise capital. IFRS adoption has been associated with better investment decisions due to low costs of information acquisition in an environment where there is compulsory application of the accounting standards. Accounting reports quality is determined by the applicable accounting standards that formed the basis of preparing financial statements. Consequently, financial reporting standards are just an significant

factor in deciding financial reporting quality; nevertheless, accounting standards may not be the only factor to consider (Banyasrisawat, 2011). East African countries ratified the adoption of IFRS in 2005 for Kenya, Tanzania and Uganda while Rwanda adopted in 2008 (IASB, 2010).

The adoption of IFRS is determined by numerous factors like: the status of capital markets development; political systems in place; the legal and regulatory environment in place; size of a country's economy; the levels of literacy; cultural factors and firm-based factors. Culture significantly influences the success of IFRS adoption, culture has a potential of being a barrier in the drive towards the development of unified and globally acceptable accounting standards (Xu, 2014; Young, 2013 and Schutte & Buys, 2011). The regulatory environment, institutional factors and the economic status results in variances in financial reporting quality (Nnadi, Omoteso and Yu, 2015; Soderstrom & Sun, 2007). Country-specific attributes like the strength of enforcement mechanisms, protection of investors and capital markets strength result to lower incidences of management of earnings consequently influencing IFRS adoption (Palea, 2013; Cardona, et al, 2014). The choice to adopt IFRS is also influenced by the size of the country, with small countries being much more likely than large countries to do so (Clements, Neil, & Stovall, 2010). The levels of literacy in a country and the net importation activities also significantly affect the choice to adopt IFRS, further development status of a country development influences the choice of adopt IFRS, developed nations are less likely to adopt IFRS adoption than the developing nations (Archambault and Archambault, 2009).

Foreign denominated firms, highly leveraged firms and listed firms highly adopt IFRS (Soderstrom & Sun, 2007: Pope & McLeay, 2011). Board's size, board meetings

attendance, performance of audits, the big 4 status of the auditor and cross listing of firms significantly and positively influences financial information quality (Fathi, 2013). The information demand on a firm has a significant effect on accounting quality, adoption of high quality policies lower information asymmetry while lower quality financial information results to higher proprietary cost (Cohen, 2003). The status of capital market development affect IFRS adoption and the quality of accounting reports. A strong investor protection mechanism less involvement by governments ensures that an investor gets a fair return on investment, it also enhances number of financiers. The laws that require mandatory disclosures and private enforcements to recover investment losses leads to benefits in the capital markets. Less developed capital market requires less disclosures and are also not likely to require the mandatory application of the accounting standards (La Porta, et al., 1998).

Investor pressures have led to changes in accounting reporting frameworks and IFRS adoption (Gray et al., 1984). Accounting regulators in countries having capital markets have developed financial reporting systems which guarantee both preparation and disclosures of high-quality accounting reports useful to investors in making investment decisions (Adhikari & Tondkar, 1992). Soderstrom and Sun (2007) observe that the process of setting accounting standards is a political and is influenced by institutions like tax bodies, banks, shareholder, management and labor unions. The French government, for example, was opposed to the implementation of IAS 39, which deals with accounting for fair values, because using fair values makes financial institutions' balance sheets volatile, which impacts their regulation. During the discussions of the standard, a caveat was placed to allow banks to hedge (Armstrong, Barth, Jagolinzer and Riedl, 2007; and Whittington,

2005). The highest resistance towards adoption of IFRS was experienced from the powerful nations as they were opposed to surrendering authority to set standards to an international body. Such powerful nations perceive the adoption of IFRS as not being beneficial because adoption will not lead to significant investment inflows (Ramanna and Sletten, 2014; Yalkin, Demir, & Demir, 2008).

The accounting standards provide great flexibility on accounting choices resulting to subjective estimates. The lack of a clear guide and the great flexibility granted by the accounting standards has resulted to higher levels of management of earnings (smoothing) which diminish the financial reporting quality (Capkum et al., 2016). While adoption of IFRS is anticipated to have significant benefits to financial reporting, the IASB has no control on the enforcement of standards and therefore the expected benefits have been minimal. Until country-specific factors which vary across countries are addressed the full benefits of IFRS adoption may not be realized (Soderstrom & Sun, 2007). Empirically, IFRS adoption has mainly been measured using a dummy variable such that IFRS adopters are assigned a value of one and zero if firm is a non-adopter, however the IASB issues a checklist to assess compliance with IFRS, the study adopted the IFRS disclosure checklist (2016) to develop the IFRS compliance index that was utilized in the current study to assess IFRS adoption.

1.1.3 Legal Enforcement

According to Boodman (1991) law refers to a system of concepts, rules, standards and methods applied in regulating human behavior. The Federation of European Accountants (2002) define enforcement as a system which prevents, identify and to correct omissions

and errors which are material in the application of IFRS in financial reporting and other regulations publicly issued to guide financial reporting. As was stated by the Committee of European Securities Regulators, (CESR) enforcement combines both supervisory and sanctions for incidences of non-compliance to existing rules, this may include legal action on defaulters. Enforcement mechanisms adopted by regulatory and enforcement institutions vary across different jurisdictions as a result legal variation. The study adopts legal enforcement to mean the mechanisms put in place to ensure compliance to IFRS reporting and related measures to protect and enforce investors rights in relation to financial reporting through the judicial process.

According to La Porta et al. (1998) commercial laws generally originate from two broad families, that is, civil and common law. They further posit that the development of laws is transplanted either voluntarily or otherwise from a few classes of legal families or traditions (Watson, 1974 as cited by La Porta et al., 1998). The current case-law originates from English law and civil law arise from the roman law, civil law consists of three major families: French; German and Scandinavian. These law traditions have spread worldwide through conquests; imitation among jurisdictions; imperialism and by borrowing. The existing laws globally reflect the influence of their legal families and revisions thereof (La Porta et al., 1998). According to Fernandez (2010), IFRS enforcement: serves a monitoring role to ensure financial reports are compliant with the stipulated reporting framework; initiates measure as may be appropriate in case of infringements; ensures investor protection; improve transparency in financial reporting and to generally aid in the application of the IFRS.

Studies on legal enforcement mechanisms are founded on enforcement measures developed by La Porta et al. (1998), enforcement measures include: efficiency of the judicial system;

the rule of law; investor protection; shareholder rights; creditor rights and corruption levels in government. The rule of law according to OECD (2013) can be interpreted to mean: no one is above the law; fundamental rights are legally protected; and access to justice is available to all. Therefore, the implication is that there exists a uniform standard set of action defined and practically enforced through the use of procedures and accountability as a result influencing the quality of governance in a country (Walundiri & Rahman, 2004; Isidro & Raonic, 2012). The study adopts rule of law and the regulatory quality indices from the world governance index of the World Bank.

The legal investor protection is a key determinant in towards the developing financial markets, ownership structures, capital, dividend policies and private benefits (La Porta et al., 2000). Despite the fact that there is a sizable collection of literature on legal systems and investor protection, the relationship between legislative frameworks and the caliber of financial reporting has received scant consideration. The true and fair view reporting is a critical element as it allows for monitoring of the activities of the firm by outsiders (Leuz et al., 2003). The current study applies regulatory quality and rule of law indices derived from the World Bank's world governance index.

1.1.4 Accounting Quality

Accounting quality refers to the correctness to which the financial statements communicate information relating to operations of a company, or level of compliance by the financial statements to established accounting standards, or the level to which a company's published financial reports convey the entity's core operations (Nasser & Nuseibeh, 2003; Robinson & Munter, 2004; Biddle et al., 2009). Accounting quality is also defined as per fundamental qualitative characteristics developed by IASB as qualities of accounting information that

underly useability of accounting reports in making decisions (IASB, 2010). The two definitions above capture the nature of financial information as reported in financial statements. Accounting quality, however, is a rational perception preference of accounting information user. This is due to the fact that different users of financial data have different tastes and, as a result, different judgments of accounting quality.

IASB (2010) provides that to the extent necessary for accounting information to be of use, it must represent faithfully and relevant to the users. Financial information becomes much more useful when it is verifiable, comparative, clear, and timely. Information is said to be relevant if its inclusion or omission impacts the users' decisions. Information is considered to relevant if it is capable of being applied as an input in developing predictions, capable of providing feedback values or both. The financial reporting quality is not observable per se, building from existing literature; it can only be expressed in terms of attributes and thus cannot be directly measured (Schipper & Vincent, 2003).

Accounting quality and financial reporting quality are interchangeably applied in literature by use of measure like: the disclosure quality; the audit fee charged; persistence of earnings; timeliness; IFRS compliance; value relevance and management of earnings. The above measures capture the attributes influencing accounting quality; thus, they indirectly measure financial information quality. The accrual-based measures however, are based on the financial information while ignoring non-financial information (Van Tendeloo & Van Straelen, 2005; Biddle et al., 2009; Lambart et al., 2011). In order to verify the accounting quality by EAC listed firms, the current study, used the metrics of discretionary accruals, fundamental qualitative aspects, and financial information's value relevance.

1.1.5 Firms Listed at the East African Community Securities Exchanges

The East African Securities Market consists of four securities markets the Dar es Salaam Stock Exchange (DSE); the Uganda Stock Exchange (USE); the Nairobi Securities Exchange (NSE) and the Rwanda Stock Exchange (RSE). Founded in 1954, the NSE is regarded Africa's most active securities exchange as well as the largest inside the EAC region. It had 66 listed firms as at 31st December, 2019. The DSE was established in September 1996 then as private limited liability company, and as of December 31, 2019, it had 25 companies listed on the exchange. The USE began operations in June 1997 and was governed by the Capital Markets Authority, with the Central Bank of Uganda as its reporting line, it had 16 firms listed as at 31st December, 2019. RSE commenced its operations on 31st October, 2011 after taking over the affairs of the Rwanda Over the Counter Exchange's activities (ROTCE), it started bond trading business in January 2008. RSE has 6 firms that were listed on its exchange as at 31st December, 2019. Burundi and South Sudan have no securities market and major financing is done through commercial banks (CMA, 2012).

The corporate governance guidelines in the East African countries contain those that have been agreed on under the East Africa Securities Regulatory Authority (EASRA), regulation is separately done in each country by the regulators. Capital market regulators in EAC require listed firms to adopt IFRS and adhere to good corporate governance. In case of breach, the regulators imitate action against the defaulters. Kenya, Tanzania and Uganda are common law countries while Burundi and Rwanda are civil legal system countries (CMA, 2006). Several laws have been developed to enforce corporate governance in the EAC

countries (Okiro, 2014). Kenya, Uganda, Rwanda and Tanzania mandatorily adopted IFRS as the base for financial reporting.

In Kenya, there is a constitutional requirement on appointments not to be more than a third of either gender, however this is only applicable to government jobs. The NSE has developed guidelines on appointments in line with the constitution but these are voluntary for companies to adopt. Gender diversity in listed NSE firms is still low and more intervention is needed to achieve diversity in boards (Njihia, 2017). Further, Kenya reviewed its Companies Act in 2015 to further strengthen corporate governance. East African countries have totally embraced the International Financial Reporting Standards (IFRS) in preparation of financial reports, with Kenya including it in the Companies Act. Further, the EAC countries are yet to ratify the diversity requirements in corporate laws and thus remain to be voluntary for firms to follow the laid down guidelines. Accounting quality in Kenya has been analyzed with mixed findings (Outa, 2011), while the effect of board diversity across EAC is yet to be analyzed. The choice of EAC listed firms informed by the EAC nations sharing relatively the same language and political history including common border protocols, in addition to the fact that each of the EAC has its own legal mechanisms capable of bringing out the country-country effects. This made it possible to examine how the nation's legal framework affected the association between the diversity of the board and the caliber of the accounting information for listed companies in the EAC. Furthermore, the impact of different legal systems mostly on quality of accounting data for EAC listed companies has yet to be determined. Listed companies are major players in their fields.

1.2 Research Problem

The failure of big companies like Enron, Marconi and Royal Ahold has created a lot of scrutiny on the quality of information reported by firms confirming the existence of weak corporate governance and questions on the quality of financial reporting (Bowen et al., 2008). Further, the scandals have also resulted in questions concerning the controlling nature of boards in ensuring there are no asymmetry through financial reporting by firms (Agrawal & Cooper, 2017). The scandals resulted from the inability of boards to check for financial reporting malpractices (Siam, et al., 2014). Locally, financial misreporting has been witnessed in Mumias Sugar, Uchumi, Kenya Airways and CMC Kenya, International Credit Bank, Greenland Bank and the Cooperative Banks in Uganda, which has resulted in great erosion shareholders' wealth and suspension from listing at the bourse (Iraya et al., 2015). The financial reporting scandals resulted to a concerted efforts to enhance board's control to enhance transparency and to safeguard shareholders' interests and to guarantee high quality financial reports (Armstrong et al., 2010 & Bushman & Smith, 2001). The quality of financial reporting is based on the quality of its earnings which may be manipulated by managers for selfish interests (Dechow & Schrand, 2004). It is therefore expected that boards that are diverse for firms adopting IFRS and operating in environments associated with strong legal enforcement mechanism will report high quality of earnings.

Accounting standards has been found to influence earnings management but it does not totally eliminate it (Lang et al., 2006). Accounting standards, legal enforcement and earnings quality globally was analyzed by Walundiri and Rahman (2004) findings of the

study report that accounting standards enhance accounting quality where strong legal enforcement exists. Therefore, adoption of IFRS alone does not lead to improvements in accounting quality due to factors such as enforcement (Chen et al., 2010). The effect of female representatives in boards was analyzed by Snirdhi et al. (2011) for US firms. They conclude that female representation in boards leads to higher quality of earnings. The impact of legal systems on quality of financial reporting information was analyzed by Filip et al. (2014). They report a higher accounting quality for civil as compared to the common law countries. In Europe, Augustino et al. (2011) investigated the impact of implementing IFRS on value relevance, they found that indeed the value relevance of financial data rose after adopting IFRS. The impact of implementation of IFRS on discretionary accruals in Germany was studied by Van Tendeloo and Van Stream (2005). Their findings indicate lower management of earnings for IFRS adopters. However, none of the research reviewed above looked at the impact of BOD diversity, IFRS adoption, and legal enforcement mechanisms on quality of financial information reported by for listed companies in the EAC.

Accounting quality has been analyzed using indicators such as: persistence of earnings; timeliness of accounting information; quality of disclosure; IFRS compliance; value relevance of earnings and discretionary accruals (Biddle, et al. 2009). Capkum et al. (2016) analyzed the effect of IFRS on management of earnings. The results of the study indicate higher management of earnings post IFRS adoption. Gender diversity effect on earnings manipulation as measured by earnings restatements was analyzed by Wahid (2018). The results of the study indicate less frauds and earnings manipulation in gender diverse boards. Rhode and Packel (2014) observe that inconclusiveness of research on board diversity and

corporate outcomes is due to the methodology adopted, economic environment, type of companies and the diversity measures adopted in the research.

Locally, the effect of implementation of IFRS on quality of financial reporting in Kenya was done by Bova and Pereira (2012) and Outa (2011), the results of the studies reported inconclusive findings on the exact impact of adopting IFRS on quality of accounting. The effect of IFRS implementation on the value relevance of financial reporting in Nigeria was studied by Alade (2018). The results of the study reported high quality accounting reports post IFRS implementation. In Kenya, Outa (2011) studied the impact of implementing IFRS on quality of financial reporting of quoted companies. The author adopted: management of firms' earnings; timely loss recognition and the earnings value relevance. Three measures indicated higher quality while five measures reported marginal decrease in quality. A study by Kaawaase et. al (2021) observed that expertise of the board, quality of internal audits and boards execution of their roles were significant determinants of accounting quality, the authors however observed that there were minimal studies on financial reporting in Uganda. The top management team diversity on accounting quality parastatals in Kenya was analyzed by Omoro (2014), the results indicate inconclusive findings relating to the impact of TMT diversity on the quality of financial reporting.

From the studies reviewed, it is evident that the accounting quality results returns mixed findings depending on the indicators adopted which makes the results not generalizable since there is no universally acceptable measure of accounting quality. The majority of the research utilized regression analysis for analysis, however no diagnostic tests were run on the models of research chosen. Further, from the above review, studies on diversity of boards and quality of accounting mainly relate to developed countries which are associate

with better legal enforcement mechanisms than East African countries. Earnings management, value relevance, and qualitative attributes were used in the current study as three metrics of accounting quality. Furthermore, no author, has established the effect of IFRS adoption and legal oversight on diversity of boards and accounting quality, according to the reviewed literature. Diagnostic tests were performed to test the robustness of the chosen regression models for the study. The study's goal was to answer: what effect IFRS adoption and law enforcement had on the link among both board diversity and accounting quality of listed companies on East African Community stock exchanges?

1.3 Research Objectives

The study's general objective was to establish the relationship among board diversity, adoption of IFRS, legal enforcement and accounting quality. The study's specific objectives were to:

- i) Determine the relationship between board diversity and accounting quality of listed firms at the East African Community securities' exchanges
- ii) Evaluate the influence of International Financial Reporting Standards adoption on the relationship between board diversity and accounting quality of firms listed at the East African Community securities' exchanges
- iii) Assess the effect of legal enforcement on the relationship between board diversity and accounting quality of firms listed at the East African Community securities' exchanges
- iv) Establish the joint effect of board diversity, International Financial Reporting Standards adoption and Legal Enforcement on the quality of accounting information of firms listed at the East African Community securities' exchanges

1.4 Value of the Study

The findings of the study will help validate the applicability of the theoretical perspectives applied to test the quality of financial information in the context of listed East African firms. Existing theories on accounting quality and boards were applied to assess the accounting quality for EAC listed firms. Firstly, from the study data collected and analyzed, generalizations will be developed on the relevant theories explaining accounting quality for listed EAC firms.

Secondly, the results will be useful to future scholars analyzing accounting quality. Scholars studying boards, accounting standards, legal enforcement and the quality of accounting since the findings of the current study will provide insights on the board diversity, IFRS adoption, legal enforcement and the quality of accounting for EAC listed firms which have not been previously documented in literature reviewed in chapter of the study, most studies were drawn from developed economies. The findings of current study adds to the existing body of knowledge.

Thirdly, the results of the study will be useful to the various shareholders of public firms in the EAC, since the diversity attributes analyzed in the current study will inform future constitution of the boards by the shareholders and the boards so as to achieve optimality in firms and the effect on accounting quality. From the results of the study, they can demand good quality financial reports from their management and also put in place adequate measures to guarantee good quality financial reporting.

Fourthly, financial sector regulators such as the various capital markets authorities, the stock exchanges and the accountancy professional bodies in East Africa will draw benefits from the study's findings. Disclosure of financial results forms a significant regulatory aspect for the various quoted companies. The results of the study will be helpful to the regulators in clearly defining the minimum disclosure requirements for listed firms in order to ensure quality financial reports.

Finally, the existing literature reviewed by this study mainly analyzed the direct relationships between the study variables directly without looking at the intervening and moderating effects. The intervening and moderation impact of adopting IFRS and legal enforcement on diversity boards was documented for listed EAC firms by the current study. This will be useful to future scholars and researchers on accounting quality and board diversity since findings on the mediating and moderating effects for EAC listed firms will be documented.

1.5 Organization of the Thesis

The six chapters of this thesis are an introduction, a review of the relevant literature, a methodology section, a descriptive analysis and presentation of the results, a testing of the hypothesis and a discussion of the results, and finally a summary of the results, the study's conclusions, and implications of the results. A brief discussion of each of the chapters follows. The study's introduction, which is presented in chapter one, provides background information. This teaches the ideas of diverse boards, the use of IFRS, the application of law, the caliber of accounting, and businesses listed on East African stock exchanges. This

then serves as the foundation for presenting the research topic, the research aims, and the significance of the study.

The study's review of the literature is in chapter two. The section provides details on the chapter introduction, the theories driving the study, factors influencing the adoption of IFRS, rewards for managing earnings, and limitations on managing earnings. Along with summarizing the empirical research and knowledge gaps, it also includes a discussion of the empirical reviews. Additionally, this chapter also presents the study's conceptual framework and its driving research hypothesis.

The study's third chapter outlines the research approach used for the investigation. Included in this is a description of the research paradigm, the study's research design, the study's target population, the method utilized to collect the data, validity and reliability testing, and the operationalization of the research variables. This chapter also includes a review of the numerous accounting quality measurements that were used in the study and data analysis strategy that was used to assess the study's research hypothesis.

Chapter four highlights the descriptive data analysis and presentation of the research data. It includes a discussion of the pilot study; study's response rate; descriptive statistics on the study's variables of the board directors' diversity attributes (age, tenure, education level, functional background, geographical background and gender), IFRS adoption, legal enforcement mechanisms, presentation of the qualitative attributes of financial information and a presentation of the robustness tests to evaluate the regression models assumptions. The correlation analysis for the study analyzing interrelation among the study's variables and the chapter summary is also highlighted in this chapter.

Chapter five outlines the results of the hypothesis tests and a highlight of research findings. It covers presentation of the test results of the study's four hypothesis and the corresponding sub-hypothesis. A discussion of the results in order to relate the them with the literature reviewed is presented in this section as well. A chapter summary highlighting the test results for the study's hypothesis are also presented. Finally, chapter six presents the summary of the research: findings; conclusions from the study; contributions of the study both to theory and to practice. The limitations of current study and a discussion of areas of additional research is covered in this section as well.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theories explaining board diversity, the adoption accounting standards, legal enforcement and the financial information's quality. In addition, the empirical review, knowledge gaps identified, the study's conceptual framework and the study's research hypothesis will also be presented in this chapter.

2.2 Theoretical Perspectives

This highlights theories that influenced the financial disclosures of information by firms, legal enforcement, IFRS adoption and board diversity. These theories are: corporate governance theories: agency, resource dependence, and upper echelons theories, financial reporting theories of information asymmetry and the decision usefulness theories. It also includes the policeman theory which supports the inclusion of the legal enforcement mechanism in the current study. These theories are elaborated in details in the section below.

2.2.1 Upper Echelons Theory

This theory explains the influence of the higher levels of management personality traits influence on organizational performance. The basic idea being to analyze the top management team as opposed to individual traits so as to have better understanding of the results of an organization (Hambrick & Mason, 1984). These findings were validated by the study of Goel and Thakor (2008), which observed that the senior management personal

traits impact on their choices. The heterogeneity of the top management teams is manifested through personality backgrounds and experience.

According to the UET; firm outcomes, strategy choice and performance can be predicted partially by the traits of its management (Hambrick & Mason, 1984). It is founded on the belief that top managers act based on their personal interpretation of the strategic options available to them and the interpretations are based on the managers professional experience, personal values and personality type (Hambrick, 2007). Earlier studies on UET analyzed the heterogeneity effect of the top management team using attributes like: age, career experience, functional background and education level on organizational outcomes.

The UET can be used to describe the role played by the team and individual factors functionality on the decision making by the executives (Nielsen, 2010). The UET can blend with other theories like the agency theory, therefore the several theoretical points of view can be jointly applied together with UET to document the effects of board diversity on the quality of accounting. Hambrick and Mason (1984) identified six observable attributes: functional background; career experience; level of education; financial position; social-economic status and age that contribute to their leadership experiences and heterogeneity.

Scholars have focused on the precise definition of the constitution of the top management teams. TMTs are identifiable from their formal titles obtained from formal publicly available documents (Finkelstein & Hambrick, 1996). According to Pitcher and Smith (2001) the authority in relation to decision making is not always with the formally defined TMT. Hambrick and Mason (1984) observed that two characteristics influence the executive decisions: observable characteristics and the psychological characteristics which

are not easily quantifiable. The current study was anchored on this theory since accounting quality is expected to be affected by the traits of its top managers. The current study adopts the observable features of the board to assess diversity. The UET criticism is that it only emphasizes on the traits of the top management of an organization ignoring other important factors like motivation of staff, emotional stability and other social factors which equally determine accounting quality, the theory also ignores the monitoring role of the board of directors and the impact of director actions on the relations between board of directors and the shareholder, necessitating the inclusion of other theories in the study. Based on this theory, the researcher analyzed the diversity traits of boards and their effect on the quality of financial information, a more diverse board is expected to report high quality accounting information.

2.2.2 Agency Theory

Agency theory documents the relation of an agent and his principal, where the owners (shareholders) or the principals of the firm, hires an agent to undertake some work, the theory was pioneered by Jensen and Meckling's (1976) works, they averred control and ownership separation leads to problems of agency because the management being agents will not always act with the principals' interests; this can be attributable to both parties pursuing different interests. Agency problems arise when agents act on their own interest, resulting in agency costs to monitor the principal's expenditure.

Existence of managerial incentives in order to take decisions that maximizes value reduces inefficiencies in firms (Jensen & Meckling, 1976). The costs of agency arise out of differing interest between firm owners and management. The costs of agency are inclusive

of: free cash flow costs and debt; residual loss; bonding costs and costs of monitoring. The principal has to incur costs of monitoring in order to observe and to control the behavior of the agent. The firm's managers generally tend to be more knowledgeable than any other stakeholder of the company. The inability of the outsiders of a firm to pass judgement regarding the status of a firm's financial performance and to classify performance as moderate the company's stock is most likely to be undervalued. The asymmetry of information between outsiders and insiders' results to the need for firms to incur monitoring costs which may consists of: generation of credible financial reports; contracts for compensation of the firm executives including contract termination or replacement costs and financial audits.

A firm's shareholders due to their numbers usually delegate management of the business operations to the board of directors and managers, who act as agents of the shareholders (Clark, 2004). The theory of agency illustrates a close relation of organizational and financial practices including financial reporting (Jensen & Smith Jr., 2000). The criticism against this theory is that it is based premise that a principal expects an agent to work for his/her interest which may not necessarily be the case since the agent may decide to pursue his/her own goals and interests different from the principal's resulting in agency conflicts. Further, firms incur monitoring costs relating to the financial statement preparations not necessarily as a solution to the agency conflicts since there are other interested stakeholders such as regulators who are in need of the financial statements. The theory also does not incorporate the impact of the individual attributes of the directors on their monitoring role, therefore inclusion of other theories was necessary. The board may try to avoid agency

conflicts through management of earnings using IFRS flexibility on discretionary choices especially when the firm profits decline or in relation to losses, which compromise the quality of financial reporting. One remedy available to the shareholders in such cases is the use of the legal systems to enforce their rights.

2.2.3 Information Asymmetry

This paradigm originates from Akerlof's (1970) paper which examined the lemons market and the quality of goods traded. It was observed that the quality of goods traded reduces where there is information difference among sellers and buyers. This leads to a lemon problem, which refers to brand new cars which are faulty. It arises when buyers are unable to isolate a "lemon" and a high-quality car, consequently, buyers pay for what they think is a quality car yet the sellers are the ones with the correct information as to the quality of the car. This leads to adverse selection where customers make decisions with incomplete information.

Information asymmetry views markets as not being perfect and firms that desire to enter into contracts are expected to have incomplete information that is useful in order to conclude their own transactions (Mwangi et al., 2014). Financial reports provide the missing link between insiders and outsiders in relation to accessing the firm's financial information. Financial reports can thus be viewed as an intermediary of parties both external and internal to the organization. Lack of disclosure financial information results to information gaps between parties that are inside and those outside the organization. The prescription of the minimum financial disclosures requirements for companies is likely to lower incidences of asymmetry of financial information. The minimum information disclosure enables the public, through financial statements, aids in making key decisions

such as investment decisions. Harmonization of accounting standards is expected to lower incidences of information asymmetry. The firm's managers being insiders have access to key information about the firm including its state of financial affairs, such a privilege may not be available to the outsiders of the firm. In the event that investors rely on incorrect financial reports, then adverse selection is said to have occurred (Yu, 2010).

The information differences above, resulted in efforts to develop harmonized accounting standards in order to ease information asymmetry by prescribing minimum financial disclosures, however, this may not fully get rid of the asymmetry challenges as a result of the discretionary choices permitted by accounting standards. Accounting discretion may provide loopholes that management can explore in order to report what correct in their opinion resulting in poor quality financial reports (Yu, 2010). The theory can be criticized due to the fact that, it cannot be analyzed independent of regulations, due to the fact that regulations affect the amount and manner of financial information disclosures, in addition, the theory is only concerned with financial reporting and fails to consider the attributes of a firm's board of directors. Further, the theory failed to take into account the possibility of buyers having their own means of ensuring that whatever they buy is of the quality they desire. Users of accounting information can obtain reports from regulators and stock brokers relating to the operations of a firm.

2.2.4 Policeman Theory

Policeman theory was put forward by Hayes et al. (1999) and is founded on the expectation that auditors are obligated to detect frauds in the course of their work. According to Hayes et al. (2005), the auditor has a responsibility not only to identify but also to prevent fraud, however, the audit effort has since shifted and moved to verifying the fairness and

truthfulness in financial statements. Auditors operate like policemen checking on the accuracy of the reported numbers in addition to detection and prevention of fraud. The relevance of this theory arises from the fact that fraud detection is a responsibility of auditors for which the matter is still under debate.

The discovery of accounting scandals and frauds such as those of: WorldCom; Enron; and Xerox and the increasing studies on fraud and creative accounts has led to scrutiny of the role played by regulatory bodies, accountants, auditors, firms and financial statements users. The fundamental question being asked by users of information is how can its precision and accuracy be assured? The challenge in dealing with fraud for auditors and investigators is the fact that fraud is often invisible and its detection requires complex data mining tools which makes it difficult for auditors and fraud investigators to discover fraud (Puiu, 2015). Whereas detection and prevention of fraud is the responsibility of management auditors will be scrutinized if scandals are later discovered (Rasha, 2016). Enhanced disclosure requirements greatly reduce incidences of fraud in firms. Such realization has impacted on the scope, manner and format of presentation of financial reports by regulators (Michael et al., 2008).

In Kenya, external audits are compulsory yearly for public companies and audit reports are supposed to be tabled in shareholders meeting for their ratification and approval. Therefore, auditors can be viewed as part of the regulatory enforcement mechanisms since auditors evaluate financial information and assess their truthfulness. This theory however does not adequately address the roles and purpose of undertaking audits since it only limits auditing to just ascertaining arithmetic accuracy of the numbers being reported (Hayes et al., 2005).

In addition, the theory only considers regulation and the monitoring responsibility of directors and auditors on financial reports ignoring the impact of the director personal traits and financial statements' users, making a case for inclusion of other theories. Further, the regulatory mechanisms through external auditing may not be effective in prevention of frauds since the external audits are undertaken after events have occurred.

2.2.5 Decision Usefulness Theory

The theory is traceable to the 1950s (Berry & Robertson, 2006). During the 1950s financial statements were criticized due to the little help they offered in economic decision-making (Chambers, 1955) as cited by (Mardini, 2012). As a result, this created a need to make information more useful to the decision makers (Edwards, 1989). According to Chambers (1955) as cited by Mardini (2012) the base for making decisions for many economic issues relate to information generated by financial reporting, which should to be relevant to the decisions that need to be made. Glautier and Underdown (2001) posit that the theory involves providing investors with information which is sufficient and useful to the investors in coming up with estimates about the future performance expectations of a firm. Glautier and Underdown (2001) provides that financial statement information quality influences the ability of users in evaluation of the firm performance. The main objectives for the preparation of financial statements is to provide useful financial reports which help the financial reports users to make informed choices by providing useful information (Deegan & Rankin, 1997).

Useful financial information should be: easily to be understood; relevant; reliable and allow for comparability to aid in making decisions (Gray, Owen, & Adams, 1996; Sterling, 1970).

These qualities are useful to decision makers, in that if one is missing, the decision usefulness of the information reduces (Kieso, Waygandt, & Warfield, 2009). Financial information should be neutral, timely and objective. According to Snavely (1967) as cited by Mardini (2012) observed that information is said to be objective if two or more professional persons independent of the preparers examine the same set of data and arrive at the same conclusion. Additionally, information is said to be free of bias if its preparation and presentation is impartial, the data should be free of inherent biases. Al-khouri and Balgasesem (2006) posited that when financial statements are delayed, its relevance in making of decision diminishes. Useful financial information should be capable of verification (Sterling, 1970). Financial information presented in the financial reports need to be useful to those making decisions in achieving their desired goals and objectives (Sterling, 1970). Williams (1987) as cited by Mardini (2012) observes that the primary object of financial reporting is to aide users in making decisions about the company.

Studies on this theory, can generally be grouped into: those that focus on the people making decisions and those that focus on models of making decisions (Bebbington, Gray, Hibbit, & Kirk, 2001; Gray et al., 1996). The studies that focus on the decision makers try to find out what the decision makers would wish to have disclosed, it further makes an assumption that the users know what is useful for them (Deegan & Rankin, 1997). The criticism of this approach is that different users have different information needs, further, it results in incoherent output since different information is analyzed (Deegan, 2000). The decision models approach, the information preparers view the needs of users as secondary (Beattie, 2005; Hitz, 2007). Decision models are based on perceptions of the preparers of

information as to what they deem useful for effective decisions. Preparers of financial information determine what to disclose in the financial reports (Mathews & Perera, 1996). Critiques of the decision models arise from the fact that it introduces bias by only focusing on the perception of those preparing accounting information. Further, the assumption of uniform information needs by various users is not possible.

IFRS adoption makes financial reporting more useful through provision of a base for comparisons through the use of a uniform base (standards) applied in the IFRS reporting. Through provision of details of what information to report, IFRS reduces the biasness as a result high quality of information useful for decision making (Mardini, 2012). The IASB framework further strengthened the need to have financial information of high quality by specifying the requirements that accounting information must meet, that is, relevance, understandability, comparability and reliability (IASB, 2008). Researchers analyzing the IFRS have applied this theory (Kribat, 2009; Funningham, 2010). The above studies are similar to the current study which evaluated IFRS adoption effect on the relation between diversity of boards and quality of accounting information. Decision usefulness theory of accounting information is now acceptable by researchers in accounting theory due to the fact there is no suitable alternative to it, further, is also considered to be a critical theory in explaining the formulation and development of the theory of accounting (Staubus, 2000).

The decision usefulness theory however best it explains accounting theory, it has several criticisms. Armstrong (1977) observed that only a few accountants believe that financial reporting main objective was to avail useful information which is helpful in decision making, this is despite them being preparers. Additionally, the theory does not specify clearly the interested user groups useful to evaluate the information for relevance (Dey,

1999). Further, the theory does not take into account varying accounting practices since management can only disclose information which is good for them as is the case in management of earnings (Mardini, 2012). The theory does not consider the impact of director traits on financial reporting. The financial information users seek to have future-oriented information while the financial reports are historical.

2.2.6 Resource Dependence Theory

This theory is traced to Pfeffer and Salancik (1978), it posits that corporate boards serve a linking role between the firm and the external parties so as to address its environmental dependence. The paper by Pfeffer and Salancik (1978) suggested four key benefits arising due to external links: first, resource provision such like information and skills; secondly, communication channels creation to aid in communicating to its important constituents; thirdly, offering commitment support to external environment key stakeholders; and fourth, creation of legitimacy for the company's external environment. Hillman, Cannella and Paetzold (2000) expanded the four benefits and developed taxonomy of various types of directors providing the firm with diverse resources like: its insiders (internal stakeholders), business consultants, support experts and communal influence. Hillman, et al. (2000) extended the theory by proposing that a variety of directors provides varied resources of benefit to the company. Therefore, diversity in boards provides resources of a high value; as a result, high quality information is expected.

Furthermore, various forms of diversity have different importance. The presence of bankers in boards positively influences the level of debt in firms, since bankers are expected to provide their expertise and networks to various debt markets (Booth & Deli, 1999). Directors with backgrounds in politics and law are most likely positions in the boards of

firms that sell to governments or being regulated by governments (Agrawal & Knoeber, 2001). Female directors and directors from ethnic minorities equally bring varied usefulness to firms. Hillman, et al. (2002) observed that African-American female directors are to a less extent likely to become business experts as compared to the African-American male directors while both African-American male and female directors have a lesser chance to be experts in business than the Caucasian women directors. Male Caucasian directors more likely become experts in business as compared to either the African-American or women directors (Carter, D'Souza, Simkins, & Simpson, 2010).

Ethnicity and gender are treated separately under the resource dependence theory since female and ethnic minority directors have diverse backgrounds with varying labor capital resulting in different abilities in addressing various dependencies on the environment. This theory presents grounds for theoretical argument for a strong case for diversity in boards. Diversity in boards improves information provision by boards as a result of the unique and diverse representation of the directors in boards (Carter et al., 2010). Gender and ethnicity diversity produce unique information sets available to the management of a firm that is useful making better decisions. The existence of a diverse board provides a firm with access to strategic constituents within the external environment. Therefore, organizations with diverse boards generally have access to a wider talent pool (Carter et al., 2010). Diversity of directors in boards brings unique nontraditional perspectives problems since they are not likely to have vested interests since they are not insiders. Diversity type across countries and cultures will differ widely. While the theory links firms outcomes to directors' personal traits, it fails to consider the relation between director traits, their monitoring role and how to address information asymmetry with external parties. Other forms of demographic

diversities in boards include age and religion which have varied importance across different nations and cultures (Carter et al., 2010).

Arising from the above review of theories, the overarching theory for the study was the upper echelons theory that is critical in understanding the directors' attributes impact on the quality of financial reports presented by firms, this theory was further supported by resource dependence theory which further strengthens the director contributions towards positive firm outcomes. Financial reporting theories of the information asymmetry and the decision usefulness theories were important in documenting the contribution of the financial reporting standards in aiding firms in order to have higher quality financial statements, the policeman theory supported the inclusion of the legal enforcement mechanisms in ensuring compliance to the laid down financial reporting mechanisms to guarantee high quality reports. The inclusion of agency theory was necessary since it links the board to the financial reports generated by firms, it further documented the board of directors' monitoring responsibility in ensuring quality reporting.

2.3 Incentives for Earnings Management

According to Verbruggen, Christaens, and Millis (2008) earnings management involves litigation risks and reputational risks to both the companies and CEO. Therefore, companies should only engage in management of earnings, only if, the benefits far outweigh the associated risks and costs. The authors identified five broad categories of incentives that motivate managers and firms to manage their earnings. These include: political costs; signaling or concealing of private information; stock market incentives; making the CEO look good and other internal incentives within the firm. The identified incentives are discussed below.

2.3.1 Stock Market Incentives

A stock markets' incentives can be viewed as being very critical due to the high interaction of accounting figures in financial reports and the reaction of the market to such reports, this can push management of a firm to manage its earnings. Most of the early research in accounting was based on the US markets which are associated with diverse ownership, liquidity and efficiency of the stock markets (Cormier, Magnan, & Morard, 2000). Investments in stock markets being risky in nature, which often, forces investors to rely on forecasts by analysts in the formulation of their portfolios. The desire to beat analysts' forecasts is a strong incentive for firms to undertake measures geared towards the management of its earnings (Verbruggen, et al., 2008). Firms meeting or beating financial analyst's expectations usually high returns either through management of earnings (Bartov, Givoly, and Hayn, 2002). Companies that fail to earnings benchmark experience negative stock returns and CEO compensation (Matsunanga & Park, 2001).

In order to either beat or meet the earnings forecasts some managers resort to manage earnings. Payne and Robb (2000), conclude that, higher level of agreements between analysts precludes a strong motivation to manage a firm's earnings in order to beat the consensus among the forecasts. If current earnings of the firm are below forecasts, managers adopt earnings management strategies to increase income. If the current earnings are higher than the forecasts of analysts, managers have a choice to either decrease earnings or manage earnings. The avoidance of losses and the declines in a firm's earnings leads companies to manage their earnings manage earnings, it may not be easy for analysts to identify such firms (Burgstahler & Eames, 2003).

To identify firms managing earnings and trying to avoid surprises due to negative earnings and firms' characteristics were identified. Firms having transitional institutional owners are highly likely to either beat or meet expectations (Matsumoto, 2002). Companies with growing earnings together revenues witness less incidences of managing their earnings (Ghosh, Gu, & Jain, 2005). So as to align shareholders goals and those of managers and to help minimize the agency conflicts, CEOs and Senior Managers get compensation through equity incentives such share options. Earnings management in addition to beating analysts' forecasts also influences stock prices. Earnings management is expected to increase with the added financial benefit to the firm's management due to increased share prices.

Earnings management is also motivated by insider trading (Beneish & Vargus, 2002; Cheng and Warfield, 2005; Park & Park, 2004). Stock compensations by way of stock options significantly affect the management of earnings (Baker, Collins, & Reitenga, 2003; Bartov & Mohanram, 2004; Kwon & Yin, 2006). Specific situations in the stock market such as IPOs and Repurchases influences management of earnings. DuCharme, et al., (2001) documented the link between managing earnings and initial public offerings. Vafeas, Vlittis, Katranis, and Ockree (2003) observed that there is weak evidence to show that managers decrease earnings by use of accruals before a share repurchase. Managers use share repurchases as tools to manage earnings when earnings are below levels required to attain desirable EPS.

Directors' equity compensation on stock prices, earnings management and firm value was analyzed by Ronen, Tzur, and Yaari (2006). The authors observe that the management of earnings distorts stock prices due to the fact that the markets have no mechanism of

undoing such bias in accounting reports. Management of earnings occur because firms engaging in it also expect other firms to practice earnings management (Bagnoli & Watts, 2000).

2.3.2 Concealing of Private Information

Management of a firm's earnings, being a process of alteration of financial reporting so as to attain a desired object, may be used by organizations to communicate to its stakeholders. Rosner (2003) examined whether firms performing poorly (failing) use earnings management to alter financial statements in order to hide their struggles financially. The author, without examining the link to stock price and CEO compensation, observed the management of a company's earnings is used to hide financial information. Accruals signal through earnings management together with other signals like stock splits is an effective tool to communicate privately held information (Louis & Robinson, 2005). Most studies assumed that managers are opportunistic, that is, they will manage earnings for their own benefit. The authors evaluated the chance that management of earnings is an optimal way used to signal opportunism. Firms at times face difficulties their accounting activities' goals to the market.

Financial analysts' failure to recognize shifts in earnings can be viewed as an indicator of optimal tax plan by firms practicing earnings management (Shane & Stock, 2006). Failure by the market to analyze this type of managing earnings means that companies may be penalized for strategically planning their taxes. Tucker and Zarowin (2006) analyzed whether managers use earnings management for their personal benefits (garbling) or to

improve flow of information. The find that managers use discretion granted by financial reports so as to report information relating to cashflows of the firm and future earnings.

2.3.3 Political Costs

Apart from alteration of financial statements to influence shareholders opinions and decisions, firms managing their earnings as a response to pressures from stakeholders who utilize the financial information. Tax policies and government fiscal regulations and policies utilized for financial reporting provide opportunities for managing earnings. Firms may want to appear more or less profitable in order for them not to be under close scrutiny of the government. Haw, et al. (2005) observed income increasing strategies in China as a contributed by government regulations the provide for at least of 10% ROE for companies that intend to float either shares or bonds. Management of earnings by lowering incomes in companies that are threatened by Superfund Act was established (Johnston & Rock, 2005).

Figures reported in the financial statements form a basis for taxation provides incentives for earnings management geared towards tax avoidance (Monen, 2003). Firms may also use management of its earnings to reduce labor negotiation costs (D'Souza, Jacob, & Ramesh, 2001). While prior research has not adequately given attention to political costs as an incentive to earnings management, a strong link has been found between political costs and earnings management.

2.3.4 Making the CEO Look Good

Management of earnings may also be utilized to boost or manage earnings by the CEO since their compensation is based on financial results of a firm. Godfrey, Mather, and Ramsey (2003) found evidence of managing earnings during periods of changeover of

CEOs, a new CEO is likely to undertake earnings lowering practices during the period when change is affected and upwards in the subsequent years. Retirement of a CEO also results in management of earnings, a retiring CEO's manage earnings upwards so that they can leave with a positive image that is likely to earn them board positions in the firm.

2.3.5 Internal Motives

Firms engage in management of their earnings in order to ensure that performance targets are met and budget standards are attained, this may be due to internal factors inherent in the firm. Leone and Rock (2002) evaluated accruals of large multinational companies, specifically, they studied the relation between budget ratcheting and management of earnings, they observed that budget changes in response to variances of prior periods from the budgeted figures and total change is higher for a positive variance. Further, they conclude that under the ratchet effect, managers practice income reducing accruals when earnings innovation is transitory.

Murphy (2001) studied the association of the firm's standard of performance, the incentives contacts and management of earnings through smoothening. The study observed that the firms using external reporting standards report less incidences of smoothened earnings than the firms using internally set or local set standards. The same results are expected to be applicable in the case of accounting standards. The choice to adopt IFRS or not is dependent on the firms' reporting needs and incentives.

2.4 Restriction of Earnings Management

The management of earnings practice is often used by managers for their own selfish gains, however the practice by firms is limited or lowered by the following firm-based and external environmental inhibitions: utilization of accounting standards; firm attributes; the

quality of audit (specifically the external auditors of a firm) and the regulatory environment applicable for the firm, this laid the foundation for inclusion of the variables analyzed in the study firms listed in the East African countries. These factors are discussed in the section below.

2.4.1 Accounting Standards, Stock Exchange Rules and State Control

The use of accounting standards which are more rigorous can inhibit earnings management. Accounting standards may however result to unwanted effects where managers may turn to real earnings management, utilizing less optimal and abnormal business practices to alter their financial performance. Tan and Jamal (2006) conclude that by use of foresight a company's managers continue reporting smoother earnings as a way of communicating to the firm's shareholders this type of managing earnings lowers the company's growth and production prospects. This implies that, when management of earnings is used as a communication tool but restricted by the reporting standards, managers resort to smoothing of earnings during the shorter term but damages the company in the long run. Manipulation of income is not always bad, if used within some limits, it results to efficient decisions. The management of earnings and discretion of managers are interlinked to other functions.

Accounting reforms ignoring the link are less beneficial. Regulation should make managing earnings a challenge and not eliminate it (Arya, Glover, & Saunder, 2003). The study further observed that the manipulation of income is not always evil, if exercised within certain limits, efficient decision making is likely. The managing of earnings and the management's discretion are interlinked and serve several functions. Formulation of accounting reforms ignoring the interconnection of the two factors above may result into the desired objects not being achieved. The aim of regulation is not to make managing

earnings impossible but to make it a challenge. The idea of totally eliminating earnings management has been questioned by prior researches of (Dutta & Gigler, 2002). Although the total eradication of earnings management has been challenged by the above studies, several studies have analyzed ways of impeding earnings management. Accounting standards formulated with avoidance of earnings management are normally very precise, eliminating accounting choice for managers. There are however no formal conclusions as to whether such a measure will result in increased relevance and informativeness of reported earnings.

Companies, majorly banks when provided with a choice of the adoption approach and the timing as to when to adopt new standards, they first consider the impact both the reported earnings and its financial position (Ramesh and Revsine, 2001). A study by Nelson, Elliot, and Tarpley (2003) reported that the standards are precise, firm executives are likely to try to manage earnings' using transactions that are structured; while where standards are very precise, managers are likely to attempt managing earnings using unstructured transactions. The implication is that, preciseness of the accounting standard alone, does not preclude management of earnings. Lang, Smith Raedy, and Wilson (2006) established that cross-listed non-US companies with smoother earnings, manage their earnings towards a target delay in their in recognizing losses as compared to firms listed in the US. Therefore, management of earnings was stronger in jurisdictions having low mechanisms of protecting its investors. The management of earnings is influence by accounting standards although SEC regulations and harmonization of accounting standards with US GAAP does not

totally eliminate management of earnings due to the use of local GAAPs by firms in a given country.

Investors are more able to interpret earnings in instances where the additional disclosures are made in relation to the balance sheet and cashflow data (Baber, Chen, & Kang, 2006). Healy, Myers, and How (2002) examined the horse-trading between objectivity and relevance of accounting information. They observed that the capitalization rule creates room for management of earnings, that is highly informative as opposed to when investments in R&D are treated as expenses even in instances where there is widespread instances of management of earnings. Altamuro, Beatty, and Weber (2005) observed that with the introduction of the accounting staff bulletin number 101 reduced management of earnings, it however resulted in a decline of the earnings informativeness. The earnings gap between local GAAPs and IAS was explained by Chen, Sun, and Wang (2002), they observed that the increasing gap is due to low quality auditing and inadequate infrastructure. Therefore, high quality standards alone are not enough to totally eradicate earnings management. The same conclusion was arrived at by VanTendeloo and VanStream (2005) who queried if voluntary adoption of IFRS results to lower management of earnings in a case-law country associated with low levels of protection of the rights of investors.

2.4.2 Firm Attributes and Corporate Governance

A firm's management determines the nature of reporting by the firm, as was observed by Wesley and Wu (2006) who observed that management forecasts both earnings and cashflows in order to meet investors demand. In the effort to achieve the desired earnings,

management commits itself to a given level of earnings, therefore it reduces the management's flexibility in managing earnings. The relation between management of earnings, a firm's audit committee and attributes of the board was analyzed by Klein (2002), the study's finding establishes negative relation between the independence of an audit committee, traits of the board and management of its earnings as measured by abnormal accruals. This therefore means the more independent the board and the audit committees are the less the cases of earnings management and vice versa is true.

An association of the structure of ownership, group's affiliations and the listing status on management of earnings was established by (Kim and Yu, 2006). The authors observe that where ownership is more diverse, companies are highly likely to manage earnings. When a company is part of a group and also if its shares are traded publicly the results were found to have the same results.

2.4.3 Audit Quality

Auditor experience and quality influence earnings management. Nelson, Elliot, and Tarpley (2003) conducted an interview for big 5 firms' auditors on their experiences relating to earnings management attempts. Higher quality audits should lead to higher quality of reported earnings by firms (Krishnan, 2003). Quality of audit is proxied in various ways, the quality of audit was measured by use of the auditor's industry expertise (Krishnan, 2003 and Van Caneghen, 2004). Both studies established negative correlations between specialization of the auditor and management of earnings as measured by discretionary accruals. Van Caneghen (2004) and Vander Bauwhede & Willekens (2004) conducted studies in the UK and Belgium to determine impact of size of auditor on management of earnings, they observed that big auditor size decreases tendencies of managing earnings.

The big 6 audit firms are considered more proactive in deterring management of earnings where income enhancing management of earnings is used to manage earnings, however, for cases of income reducing management of earnings non-big 6 auditors were found more effective as compared to the big 6 auditors in determent of earnings management (Kim, Chung, & Firth, 2003). The independence of an auditor greatly affects the quality of audit work done by an auditor; independence is compromised for cases where auditor offers non-audit services to the same client in addition to audit. It gets worse when a client becomes important for an auditor for instance, where an auditor audits a client for a long period or where a client recruits a CFO from the auditor's firm. The threat to independence has been linked to management of earnings.

Frankel, et al. (2002) and Ferguson, et al. (2004) establish a positive association between consumption of non-audit services and management of earnings. A study by Chung and Kallapur (2003) however did not establish any significant relationship between the importance of a client and earnings management. the independence of an auditor is also compromised if an audit firm deals with a client for a long time. A long tenure of audit leads to a lower likelihood of the auditor issuing a going concern opinion and management of earnings (Carey & Simnett, 2006). Auditor-to-client revolving door effect (a practice where a firm hires senior financial managers from its external auditor's firm) on quality of audit was analyzed by Geiger, North, and O'Connell (2005). Earnings management in such cases happens immediately prior or post hiring, when auditor independence is affected by the potential employment or afterwards when the new finance manager uses his knowledge of the audit firm. Such potentially results to a reduction of the quality of audit, though the outcome of the study did not confirm the hypothesis.

Management of earnings is also related to the risk of litigation of auditors (Heninger, 2001). This implies that auditors will be held responsible for inflated earnings by the firm in order for it to 'look good'. This motivates auditors to check for strategies of income increasing earnings management, specifically for large firms and financially distressed firms. The levels of materiality set in a firm can also be used to manage its earnings. Libby and Kenney (2000) analyzed audit managers; they observed that clients will make full corrections only when the forecasts are not going to be missed. They conclude that the opportunistic correction of quantitative immaterial errors and misstatements is based on the firm's desire to manage earnings and the acceptance by the auditor of the practice. The auditor's decision on whether to initiate adjustments of financial statements or not is based on the materiality approach (Nelson, Smith, & Palmrose, 2005). Auditors should therefore require adjustments to be made whenever the misstatement is material.

2.4.4 Regulatory Environment

The effect of cross listing of firms has been analyzed in relation to management of earnings. Li, Luo, and Ng (2010) analyzed the effect of cross-listing on management of earnings in China and Hong Kong. They observed that stringent delisting rules were applicable in China for loss making firms 2 years prior to delisting, while the rules were not there in Hong Kong.

They observe that strict delisting regulations induce earnings management and that cross-listing in Hong Kong had a significant limiting effect on the management of earnings. An analysis of the effect of regulatory pressures on earnings management was done by Vasant (2011), for non-profit hospitals in the United States. The author reported that managers of non-profit hospitals manage earnings higher when they are not under scrutiny by the

regulators of their reported Charity Care. Further, hospitals manage earnings so as to within the regulator's requirement of zero profit.

Accounting based regulation distorts the reported earnings by firms. Firms having negative book value of equity in India can seek bankruptcy protection. Firms experiencing bankruptcy in India manage their earnings lower in order to seek bankruptcy protection (Gapolan, Martin, and Srinivasan, 2016). The authors observe that strong creditor's rights will reduce downwards the management of earnings, further, upward management of earnings will occur when firms have low net worth but with positive earnings in order to avoid filing for bankruptcy. A review of studies on behavioral attributes on the regulatory effect on management of earnings and accounting choices was done by (Libby & Seybert, 2009), the authors observe that capital market pressures, potential tax savings and possible reputational damage drive the management of earnings by firms.

2.4.5 Board of Directors

A reasonably sized boards are anticipated to effectively track and check the management's actions. Bala and Kumai (2015) analyzed the effect of the size of the board directors and management of earnings for food and beverage firms in Nigeria, a negative association of board size and management of earnings was established. These findings were confirmed by studies of Iraya et al., (2015). Firms having a higher number of directors who are independent and non-executive reported lower incidences of managing their earnings (Iraya et al., 2015), while there was no meaningful association was established between the independence of a board and management of earnings (Waweru & Riro, 2013).

The use of executive share options schemes (ESOPs) and managerial ownership for directors reduces the management of earnings in firms, however, it however had no effect on the management of earnings by (Khalil & Ozkan, 2016). Regularly meeting boards exercise effective control over the firm, therefore resulting to lower management of earnings. A board with technical competence and knowledge on finance and accounting matters, such members using their financial expertise are expected to detect earnings management practices by management. therefore, a board with members having financial expertise knowledge restricts earnings management by firms (Bala & Kumai, 2015).

Firms with highly concentrated ownership are characterized by few shareholders owning huge chunks of shares, such firms are related negatively with management of earnings (Iraya et al., 2015), while Waweru and Riro (2013) establish a positive and significant relation between management of earnings and the concentration of ownership. Audit committee serves a monitoring role on management's activities, as a result firms having an audit committee reports low levels of management of earnings. However, Khalil and Ozkan (2016) failed to establish any association between ownership concentration and management of earnings. CEOs serving as chairman of board (CEO duality) exercise significant control on the BOD, therefore weakening the independence of the boards. CEO duality resulted to a positive relationship to management of earnings by firms (Iraya et al., 2015).

Women directors in corporate boards influences the management of earnings by firms. Women involvement in upper management hierarchy leads to higher quality earnings by firms (Krishnan & Parsons, 2008). Female CFOs have been associated with measures of income decreasing discretionary accruals, this implies that conservativeness (Peni &

Vahamaa, 2010; Srinidhi, et al, 2011). The effect of female directors in the US on the quality of earnings was analyzed by (Srinidhi, et al., 2011). The study established that companies having high female representatives in senior managerial positions reported lower incidences of management of earnings. The effect of women representation in corporate boards and in audit committees of Malaysian listed firms was analyzed by Ismail and Abdullah (2013). They observed that for firms which are not family owned, women in boards serve to restrict earnings management. Sun and Liu (2011) studied S&P firms in the US, the study failed to establish significant effect of the number of female representation in boards on the relationship between audit committees and management of earnings. The authors argued that there exists similarity in ethical beliefs of men and women in relation to earnings management.

2.5 Qualitative Characteristics of Accounting

The fundamental qualitative attributes of financial information examine the magnitude and usefulness of financial reporting in making decisions through operationalization of the qualitative attributes of financial reports. The use of this model in accounting research was pioneered by (Jonas & Blanchet, 2000), they formulated questions basing on the accounting's conceptual framework of FASB 1980 together with that of IASB 1989. Empirically, McDaniel, et al. (2002) applied the model based on the IASB (1989) and the FASB (1980) while (Van Beest, et al., 2009) used IASB (2008) conceptual framework. The advantage of using the qualitative approach is that it covers all areas of the financial reporting (financial & non-financial) components resulting to a direct measurement of financial information quality.

Financial information quality is deemed to exist if financial reporting encompasses the qualitative attributes of accounting: faithful representation and relevance that are considered

fundamental. The enhancing properties of timeliness, comparability and understandability which do not determine accounting quality on their own but help to enhance the helpfulness of financial statements in decision making (2008). The qualitative characteristics are described below.

2.5.1 Relevance

Relevance hint to the ability of influencing the decisions of financial reporting users in their role as providers of capital (IASB, 2008). It can also be viewed in relation to confirmatory and predictive value properties (McDaniel, et al., 2002). The predictability value relates to the generation of future cashflows of a firm. Financial information is said to have predictive capability if it is considered as being valuable if applied as an input to the prediction process applicable by the providers of capital in forming their expectations of the firm's future. The predictive value property is an important relevance indicator relating to usefulness of information for decision making. Basic measures of predictive value include: extent of provision of forward-looking information, disclosures of opportunities and risks relating to business, extent of use of fair value. Forward-looking information describe the expectations of management about the future of the company which is important to the providers of capital because management can access privately held information which is not available to other parties outside the firm, which is useful to make forecasts. To be relevant, financial reports should report on both the financial and the non-financial aspects that give pointers to the current business opportunities, risks as well as the future of the firm as observed by Jonas and Blanchet (2000). Fair value use, unlike historical costs results to enhanced predictive value of the financial reports (Barth, Beaver, & Landsman, 2001). The use of fair values results to more relevant financial reports as compared to use of historical

cost since it captures the latest assets values as opposed to purchase prices (Maines & Wahlen, 2006). Further, the use of fair values measures as espoused by IASB and FASB, where fair value is deemed as highly important financial information attribute that enhances relevance (Barth et al., 2001).

Apart from the predictability aspect, relevance is also contributed by the confirmatory value of financial information. Financial reporting information is deemed to have confirmatory attribute, if it can confirm or alter the historical or current expectations based on prior evaluation of the firm (IASB, 2008). Providing feedback information to financial reporting users on prior transactions and events is useful in confirming or changing their expectations about the firm. This information is normally reported in the section highlighting management analysis and discussions contained in the annual financial statements (Jonas & Blanchet, 2000).

2.5.2 Faithful Representation

This is a qualitative fundamental trait of financial information. As per IASB (2008), financial information is said to be faithful representation of occurs if the financial report is neutral, free from any material errors and is complete. Jonas and Blanchet (2000) observed that faithfully represented can be measured in relation to the aspects of: neutrality; freedom from material errors; verifiability and completeness of accounting information. The measurement of faithful representation through assessment of the annual report only is a challenge since the actual information that relates to accounting information in order to have assurance of faithful representation (Botosan, 2004) however, the assumptions and estimates closely responding to the underlying standards and constructs pursued enhance faithful representation of accounting information (Maines & Wahlen, 2006). Van Beest et

al. (2009) observe that the most commonly applied proxies in measurement of faithful representation include: free from bias, the type of audit report opinion, presence of corporate governance information and neutrality. Financial information is considered to be bias free if the financial statements explain clearly the estimates and assumptions made during the financial statement preparation in addition to the choices of accounting principles and policies applied. Financial statements are considered neutral if the report highlights a balance of both negative and positive events (IASB, 2008).

2.5.3 Understandability

It is an enhancing trait of accounting information. As per IASB (2008) understandability of accounting information is improved where the information has been: classified; characterized and presented in a clear and summarized manner that enables users understand its meaning. Understandability can be measured by the following items: extent of organization of the information contained in the financial report, disclosures of information as per the financial statements notes, extent of use of figures (tables and or graphs) in presenting information, the extent of use of technical and complex words and finally, the use of glossaries in explaining any unfamiliar terms used.

2.5.4 Comparability

Comparability is the attribute that enable users of financial information to recognize any differences and or resemblance of two sets of financial reports (IASB, 2008). It is an enhancing qualitative property. This implies that similar circumstances be presented in a similar manner and vice versa. It is measured by different measures which assess consistency of application of accounting procedures, procedures and comparison across

firms within the industry. As per Van Beest, et al. (2009), comparability measures include: explanatory notes on changes in accounting policies and their implications, notes relating to revisions in accounting judgements and estimates and their implications, extent of adjustments of prior year figures due to a change on the accounting policies or accounting estimate revisions, extent of provision of comparative results of the current reporting period with that of the prior periods, comparability of the information reported by an entity to those of other organizations in the industry and the extent of provision of financial indices and financial ratios in the financial statements.

2.5.5 Timeliness

As per IASB (2010) information is said to be timely if the information is available to makers of decisions before the information loses its decision influencing capacity. Timeliness therefore refers to decision helpfulness of the annual financial reports for companies. Timeliness also considers time taken in order to make public the information reported in the financial statements, it is mostly indicated by the days it takes a firm's external auditors to sign-off audited accounts upon the lapse of the financial period. It is generally considered that a shorter a duration is indicative of better quality of accounting information (Mbombo & Ntiedo, 2016).

2.6 Value Relevance of Accounting

Value relevance relates to the use of either the return or price data so as to determine the drivers of value based on the price or returns on the market values of the stocks (Ball & Brown, 1968). The empirical investigations of value relevance aim at evaluating the usefulness of accounting reports on the stock. Financial information is value relevant if there is any statistical relation between financial reporting and the firm's shares market

prices. Information about the book value and the earnings in the financial report is the most widely applied because they summarize information as reported in the company's financial reports (Barth, et al., 2001). Value relevance is affected by the following factors:

2.6.1 Market Efficiency

A financial market is considered efficient, if the stock prices have considered all information which is publicly available in relation to a firm. According to Madura and Fox (2007), there are three efficiency forms of financial markets: the weak; the semi-strong and the strong market efficiency. Weak efficiency form occurs where all the publicly available has been captured in the prevailing share prices. Semi strong efficiency form occurs where all public information available inclusive of new information has been captured in prevailing share price. Strong efficiency form happens where every information public or otherwise inclusive of insider information has been captured in the current market prices of shares. Efficiency relates to the content of disclosures and not the form valued by the markets. If markets are inefficient, share prices and the returns do not reflect information available to the investors and consequently not value relevant (Scott, 2006).

The effect of market efficiency of the value relevance considering: book values; earnings; residual incomes; cash flows and accruals was analyzed by Aboody, Hughes and Liu (2002). Results of their study indicate that for inefficient markets financial reporting information was not value relevant. They observed that to assess value relevant information in relation to intrinsic values share prices should be adjusted for future changes in price for inefficient markets. Markets are considered inefficient if the intrinsic values are measured with errors. They conclude that in making inferences on value relevance, the level of market efficiency should be considered.

2.6.2 Accounting Standards

Accounting standards prescribe the manner in which accounting information is disclosed by prescribing among other things the minimum disclosure requirements by firms in their yearly financial reporting. Firms complying to the IFRS report more value relevant information. Alfaraih (2009) analyzed the relation between IFRS/IAS compliance and the stock prices of firms and reports significant association between IFRS/IAS compliance and share prices. This finding was similar to those of Tsalavoutas and Dionysiou (2014) who analyzed IFRS compliance to the mandatory disclosure requirements in Greece and share prices and report high association of stock prices between high compliance firms as compared to the low-compliance firms.

Alfrah and Alanezi (2015) analyzed the effect of mandatory compliance to IAS/IFRS in Kuwait's listed firms and report a significant statistical association between compliance to the accounting standards and share prices. The study however observed that the mandatory requirements remain fairly constant through the period of the study which constrained the year-to-year observation.

2.6.3 Regulation

Regulation provides important guidelines and restriction both in the presentation and preparation of accounting information and consequently influencing value relevance of financial information. Leuz (2003) observes that regulation enhances helpfulness of financial reporting information making it easier for comparing information relating to diverse industries and countries and therefore more value relevant. El-Gazzaret et.al. (2009) analyzed the effect of book values, earnings and the stock price for the aviation industry,

they examined the: earnings; book values and stock price. They report high statistical relation between the financial information and prices of shares for regulated markets as compared to the deregulated markets, they attribute this to high competition in a deregulated market.

Post IFRS adoption financial information value relevance is expected to improve for countries with common law systems which are associated with higher external openness and a strong investor protection system where the minority shareholders are highly protected and in a well-developed capital market (Chebaane and Othman, 2014). Further, value relevance is enhanced in environments having strong investor protection mechanisms after adopting IFRS (Chalmers, et al., 2011).

2.6.4 Firm-specific Factors

Firm traits significantly determine value relevance of financial information, specifically, factors analyzed include: company size, auditor, profits and nature of industry. Alfraiah (2009) analyzed the effect of size of a company, categorization of industry and profitability on the prices and returns. Results indicate significant positive association between industry nature, company size and price confirming value relevance. Khanagha (2011) examines the impact of industry category and size of the firm on value relevance in the UAE. The results indicate that the large firms reported more value relevant information after IFRS adoption as compared to smaller firms. In relation to nature of industry financial and non-financial categories recorded enhanced value relevance of information in the period after adoption of IFRS.

The effect of board, audit committees and external audits on value relevance was analyzed by (Habib & Azim, 2008). The results indicate association between strong governance mechanisms and value relevance; therefore, firm factors are critical determinants of firm share price sensitivity to financial reporting information. Disclosures of practices relating to corporate governance to both stakeholders and shareholders positively affects firm value providing support for the resource dependence theory (Ntim, Opong, & Danbolt, 2011). Smaller boards where the CEO also serves as a chair are associated with high value relevant financial information while the independence of directors is irrelevant to the share prices (Fiador, 2013). Further, responsiveness of share prices to financial information is negatively related to management of earnings in an environment where the corporate governance practices are effective to constraint management of a firm's earnings (Shan, 2015).

2.7 Empirical Review

Accounting quality has been related to strong corporate governance in firms, board attributes affect management of earnings while IFRS adoption and legal enforcement restrict management of earnings by firms therefore improving accounting quality. Empirical findings on board Diversity, IFRS adoption, legal enforcement and accounting quality are discussed below.

2.7.1 Board Diversity and Accounting Quality

The impact of gender diverse a board is on the quality of earnings of US firms between 2001 to 2007 was done by Srinidhi, Gul and Tsui (2011). Multiple regression analysis was used in testing study's research hypothesis. Management of earnings towards a target and discretionary accruals and were applied to assess the earning's quality. Results of their study establish that company boards having female directors report lower incidences of management of incomes and consequently high quality of reported earnings. The authors

however did not analyze the impact of adopting IFRS and legal mechanisms on the reported quality of a firm's earnings.

In Kenya, Omoro (2014) analyzed the contribution of having a diverse senior management team (TMT), firm's voluntary disclosures (CVD) and discretionary choices on quality of the financial reports generated by parastatals in Kenya. Managing of earnings, quality of disclosures, timeliness and IASB's qualitative characteristics were used to measure FRQ. Data was obtained from secondary sources from 2004 to 2013. Blau index and coefficient of variation was used to measure TMT diversity. Data was analyzed through use of multiple stepwise regression analysis and correlation. The study reported that director age, functional background and tenure in the TMT and CVD influence fundamental qualitative characteristics while TMT gender and education were negatively associated with fundamental qualitative characteristics. Minimal effects were observed on earnings quality and timeliness. Disclosure quality revealed insignificant results. The study therefore reveals mixed effects of TMT diversity on accounting quality.

Director's tenure impact on quality of financial reports in Korea was analyzed by Kim and Yang (2014). The study applied a modification of Jones's (1991) model to measure the extent to which firms manage earnings, earnings response coefficient (ERC), persistence of earnings as proxies for financial information quality. The authors analyzed 5502 data points drawn from the Korean listed firms excluding financial firms. Test of hypothesis was done using univariate and multivariate analysis. A significantly negative relationship between director tenure and quality of accounting reports measured by earnings management was established. Earnings persistence and ERC establish a positive relation with the tenure of

directors. The above study failed to consider the contributing effect of adopting IFRS on association between board's tenure diversity and earnings management.

The impact of having a gender diverse board on financial improprieties in firms was analyzed by Wahid (2018). The study analyzed 6,132 listed US companies for 10 years (2000 to 2010). Univariate and logit regression analysis were applied to perform tests of the hypothesis of the study. The study found that gender diverse boards record less cases of mistakes in their financial reporting and additionally lower cases of fraud, this was applicable for both pre and post regulation (Sarbanes-oxley). The benefit of higher representation female directors in boards however was found to reduce at higher levels of gender diversity which is attributable to group dynamics within the board. The above study was undertaken in the US that is associated with a different regulatory framework from that of East Africa, further, impact of adopting of IFRS was also not analyzed in the study.

By use of resource dependence, upper echelons and agency theories Elzahar, et al. (2022) analyzed the contributions of female director attributes on accruals management of earnings in the USA for the years 1998 to 2014 utilizing 15,234 observations. The study used linear regression analysis to assess the study hypothesis. The results of the study indicate that several directorships and length of female director tenure enhances their monitoring role and consequently lower cases of management of earnings. The study was however based in the USA which has different legal mechanisms to that of the East African Community countries, further, the study only considered gender aspect of the board, ignoring other diversity attributes such as education level, functional area, nationality among other critical board attributes which lowers the generalizations to be made out of the study's findings.

2.7.2 Board Diversity, IFRS Adoption and Accounting Quality

In a study that compared whether the adopting IFRS leads to lower incidences of management of earnings as compared to German GAAPs was done by VanTendeloo and VanStream (2005). The authors sampled listed German firms, excluding financial and utility firms, in the period 1999-2001, resulting to 636 firm year observations. Discretionary accruals were used to assess earnings management. Regression model proposed by Jones (1991) to measure earnings management was applied. The authors had to control for auditing, size of the firm, firm's leverage and cross listing which affect earnings management. IFRS adopters reported less earnings management behavior as compared to firms using the German GAAPs. The study however considered a small duration of 3 years which is not sufficient to make meaningful conclusions, additionally the German context is associated with higher quality legal enforcement mechanisms as compared to EAC.

The adoption of IFRS on prices of shares of European banks was analyzed by Agostino, et al. (2011). The used panel data obtained from a sample of 221 banks across Europe from the year 2000 to 2006. Ordinary least squares, specifically the Ohlson (1995) model was used to measure the responsiveness of stock prices to adopting IFRS. It was established that the compulsory IFRS application in Europe lead to increased stock prices for European banks with the highest effect being felt in Italy and Germany while minimal effect was realized in the UK due to high quality of the UK GAAPs. The study however, only analyzing the effects of adopting IFRS in the banking industry as a result its findings may not be applicable to other industries.

The IAS/IFRS has empirically been found to affect the magnitude for which firms manage earnings. Capkum et al. (2016) analyzed the IAS/IFRS effects on the management of

earnings pre-2005 and post-2005. The authors sampled 3,853 firms drawn from 29 countries which had transitioned to IFRS from the period 1994 to 2009. They classified firms as: early adopter (adopted IAS prior to 2004); late adopters (firms from countries which permitted the early adoption of IAS, but chose to wait till the start of 2005 to adopt IFRS) and mandatory IFRS adopters. The authors observe that the adopting of IAS and IFRS, for jurisdictions associated with weak levels of enforcement, presents firms with flexibility for its managers on financial reporting which results to increased incidences of management of earnings. This is attributed to weak mechanisms of enforcement are not prohibitive enough to restrict management of earnings. The effect of auditing and board attributes which affect both IFRS/IAS and management of earnings were however not considered by the study.

In South Africa, the mandatory effect of transition to IFRS on management of earnings was analyzed by Sellami and Slimi (2016). Discretionary accruals and accruals quality were used to assess accounting quality by comparing the period before IFRS (between 2002 and 2004) and the period after IFRS adoption period which was between 2010 and 2012. The study considered 276 firm-year observations obtained from 46 listed South African firms. Regression analysis was utilized to study the effect mandatorily adopting IFRS, mechanisms of corporate governance and management of earnings while controlling other important determinants that affect management of earnings. The study's results reveal that mandatorily adopting IFRS results to lower incidences of earnings management. Further, it was established that the CEO AND board chair role separation, company size and board's independence significantly affect management of earnings. The study however did not

consider various attributes of diversity in boards and influence of legal mechanisms in a county.

A study to evaluate whether directors' traits influence the responsiveness of share prices to financial information fair values as per IFRS number 13 was conducted by Siekkinen (2017). The study obtained data from 848 listed firms drawn from the EU, Norway, Iceland, Liechtenstein and Switzerland covering the financial years 2012 and 2013. The study utilized regression analysis and the Olson model in testing research hypothesis. The author observes that, board's independence and gender diversity positively influence share prices by use of fair values. Further, firms having large boards were associated with lower quality of the company generated estimates of fair values. The study reinforces the influence of director traits on firm outcomes. It was also established that the study established that adopting IFRS 13 results in lower information asymmetry instances relating to the reporting of the estimates of fair values. The study sample was however drawn to cover a shorter duration of time and at the same time did not consider the effect of the legal set ups and enforcement mechanisms for the countries analyzed. In addition, the study was done predominantly in the EU which is associated with strong legal mechanisms as compared to the East African countries.

The influence of adoption IFRS and traits of a board on management of earnings management in China were analyzed by Albitar, Alqatan and Huang (2019). The study analyzed Chinese listed firms from the years 2003 to 2013 with the exclusion of 2007 the mandatory year of adoption. Multivariate and univariate analysis were utilized in testing of the study's hypothesis. Results of the study revealed higher instances of management of

earnings after IFRS has been adopted, no relationship was established to exist between the size of a board and management of earnings while board's independence significantly lowered the management of earnings after IFRS adoption. The study however, did not consider the aspects of the board diversity traits and the effect of legal enforcement mechanisms.

2.7.3 Board Diversity, Legal Enforcement and Accounting Quality

The contribution of financial reporting incentives among firms and country-specific factors on the quality of financial information in 26 countries was conducted by Isidro and Raonic (2012). Value relevance was used to assess quality of the reported financial information. The authors observed that, quality of financial reporting increases post IFRS adoption for environments with strong regulatory enforcement mechanisms. The study observes that firm incentives are critical determinants of quality of financial reports as compared to the country factors. The study however, did not consider firms in East Africa; therefore, the findings may not be applicable to EAC firms which are subject to varying enforcement mechanisms.

In Canada, the effect of legal systems on quality of financial information that is reported by firms was conducted by Filip et al. (2014). Canada presents an interesting scenario since its both a civil law and common law country. Abnormal accruals, magnitude of accruals and conservatism was used to measure FRQ. The study sampled 727 firms excluding financial firms, for 10 years from 1997 to 2008 which resulted to 3,189 firm-year observations. The study observes that civil law results to higher financial reporting quality as a result of higher risk liability faced by an auditor and the board of directors. The study's findings question the preexisting belief that common law jurisdictions are superior to civil law

countries with regards to accounting quality. The study was based in Canada with strong enforcement mechanisms when compared to EAC nations, therefore the conclusions may not be applicable to EAC firms.

Investor protection mechanisms impact on financial reporting quality was analyzed by Tang et al. (2016). The study analyzed 38 countries for the period 2000 to 2007 using financial reporting index which combines firm related measures of accounting and auditing. The financial reporting index used the ratio of avoidance of loss, avoidance of profit decline ratio, ratio of accruals, the ratio of qualification opinions in audit reports, the ratio of non-Big 4 audit firms and scaled fees paid for audits, an average of this index was determined and was applied to measure quality of financial reporting. The authors reports that nations associated with strong mechanisms of protecting investors reported higher quality financial information, however, IFRS adoption and firm specific attributes like board diversity were not considered by the study.

A study on the contributions of corporate governance, quality of internal audit on quality of financial reports by financial institutions in Uganda was undertaken by the study of Kaawaase et al. (2021). The study analyzed expertise; independence and the execution of the board roles as the corporate governance attributes, while the qualitative attributes of financial information. Their study made use of descriptive-correlational, design of research, data was sourced from 67 finance officers and internal auditors of financial institutions. The findings of the study reveal that board expertise, quality of internal audit and the execution of boards' role were significant determinants to the quality of reported financial information of financial institutions analyzed in the study. The study confirms the relevance of boards in determining the quality aspects of reported financial information. Their study however

cannot be generalizable to East Africa countries due to the fact that it was only undertaken in Uganda and considered only the financial institutions, further, the effect of application of accounting standards and the legal mechanisms on the quality of reported financial information was not considered by the study.

2.7.4 Board Diversity, IFRS Adoption, Legal Enforcement and Accounting Quality

A study to analyze the effect of accounting standards quality, their acceptability and their enforcement on the earnings value relevance in 35 countries was conducted by Walundiri and Rahman (2004). Data was obtained for the years' 1996 to 2001, in total 24,462 firm-year data points were utilized by the study. Multiple regression and correlation analysis were used to test the hypothesis of the study. Results show that quality of accounting standards, their acceptability and strong standards enforcement leads to increased value relevance. The study conducted pre-current IFRS thus findings may not apply.

An exploration of the financial reporting incentives created by a country's institutional structure and earnings conservatism influencing the market players was analyzed by Bushman and Piotroski (2006). The study analyzed firms from the US, Japan and Britain the data was sourced from Global Vantage from 1992 to 2001. Linear regression models were utilized in testing the study's hypothesis. The findings of the study reveal that firms operating in environments having strong mechanisms of protecting investors and high-quality systems of judiciary reported bad news on time as compared to firms that operate in countries having lower quality judiciary systems and weaker investor protection mechanisms. Further, companies in countries having weaker public enforcement mechanisms report delayed to recognize good news on their financial statements in relation to firms operating in jurisdictions with weak law enforcement. The study failed to take into

account the contributions of board diversity and adopting IFRS. Further, the study was however done in a developed country whose legal systems may not be similar to East African Community countries, thus findings cannot be generalized for EAC.

The effect of applying IFRS on the sensitivity of share prices to the financial reported in Nigeria was analyzed by Alade (2018). The study was founded on the information asymmetry hypothesis, signaling effect and stock market efficiency hypothesis. The study analyzed 128 listed firms from 2008 to 2015. The study included firm-based factors as the control variable like cash flows and size of the firm and descriptive research design was used. The Olson model of regression was applied. The study reported increased sensitivity of share prices to financial reporting after adopting IFRS. Further, the author concluded that adopting IFRS results to less asymmetry of information, leading to better market efficiency and minimization of agency costs due to non-conformity to IFRS. The input of legal mechanisms and board of director traits on association between adopting IFRS and the financial reports quality. The impact of legal mechanisms and board of director traits on the relation between adopting IFRS and the quality financial information was not considered by the study.

A test to assess if globalization and the application of IFRS results to lower levels of management of earnings by African banks was analyzed by Amidu and Issahaku (2019). Data was obtained from 330 banks drawn from 29 countries in Africa from 2002 to 2009, this period being the time when many African countries adopted IFRS. Provisions for the loan loss was the indicator used to analyze accounting quality. Multiple regression modeling was utilized in the test of the research hypothesis. The outcome of the study indicate that national economies are integrated and African banks reported higher quality

financial information due to the banks adopting IFRS and globalization. The study however only considered banking sector alone therefore the findings cannot be generalized for other non-banking firms in East Africa. Further, the study failed to consider impact of director's traits on the quality of reported financial information.

IFRS adoption, practices of corporate governance and the quality of financial information in Greece banking sector during a crisis was analyzed by Ballas, Garefalkis, Lemonakis and Balla (2019). The study analyzed the contribution of implementing IFRS and mechanisms of corporate governance on the reported financial information's quality for 14 Greek banks from 2008 to 2011. The authors utilized regression analysis and accounting quality was assessed with the narrations reported in the notes contained in the financial reports. The authors establish a significant association between cultural and gender diversities and accounting quality. Further, independence of the audit committee, existence of external auditors specializing on sustainability reporting and board independence significantly affected financial information quality. The study, however, was undertaken during a global financial crisis and Greece financial crisis which are characterized by stringent regulations which may not bring out the effect of the existing legal mechanisms. Further, the study was conducted in Greece during a crisis period consequently, the findings cannot be generalized for the East African nations.

2.8 Summary of Empirical Review and Knowledge Gaps

Majority of studies reviewed above, on board diversity and the quality of accounting have been done in the developed economies, mainly the EU and USA. Arising from above, varying enforcement mechanisms, regulatory environment and investor protection mechanism makes the findings from the reviewed studies not generalizable. The current

study sought to cover this research gap by evaluating the impact of board diversity and financial information quality for EAC listed firms. Further, the studies reviewed analyzed the contributions of diversity in board's; legal enforcement and IFRS adoption independently. Through the current study, this existing research gap was addressed by the joint examination of the contributions of diversity in boards, application of IFRS and legal enforcement on accounting quality for EAC listed firms.

The studies reviewed mainly utilized regression analysis to test the research data, which is based on certain assumptions which are supposed to be tested for robustness of the models chosen. Majority of the studies reviewed did not perform OLS diagnostic tests. Bias and consistency tests for OLS model were also not performed in majority of the reviewed studies. The studies reviewed in this section are chronologically summarized in the Table 2.1 below.

Table 2.1: Summary of Literature Review and Gaps

Author	Study Objective	Study Variables	Findings	Gap(s)	Addressing the Gaps
Walundiri and Rahman (2004)	To determine the acceptability, quality, enforcement and contribution of accounting standards on value relevance	Accounting standards, Value relevance	Accounting standards acceptability in strong enforcement environments lead to enhanced value relevance of earnings	Study was however conducted pre-current IFRS regime thus findings may not be applicable to the current IFRS regime.	Current study considered current IFRS regime and documents findings for EAC firms
Van Tendeloo and VanStream (2005)	To analyze effect adopting IFRS on management of earnings	Discretionary accruals, IFRS, GAAPS	IFRS adopters report less earnings management as compared to firms using the German GAAPs.	Germany is associated with strong enforcement conclusions may not be generalizable in EAC	The current study considers EAC listed firms
Bushman and Piotroski (2006)	To explore the effect of incentives of financial reporting and conservatism of earnings	Conservatism of earnings, reporting incentives	Firms in environments having strong protection of investors and high judicial quality report timely bad news and delay good news in reports	IFRS adoption, and board diversity were not considered	IFRS adoption and board diversity were considered in the study
Agostino, Drago and Silipo	To assess the impact of IFRS adoption on the value relevance in	Value relevance, IFRS adoption	Mandatory adoption of IFRS in Europe resulted in higher stock prices for	Study only considered banks	All listed EAC firms were considered in the current study

Author	Study Objective	Study Variables	Findings	Gap(s)	Addressing the Gaps
(2011)	Europe		European banks		
Srinidhi, Gul and Tsui (2011)	To study the effect of female board members in the US	Discretionary accruals, earnings management towards a target	Boards with female directors reported high earnings quality.	Study only considered gender diversity	Other diversity aspects in addition to gender were considered in the current study
Isidro and Raonic (2012)	To analyze the impact of financial reporting incentives and country factors	Value relevance, reporting incentives	Quality improved in: strong enforcement; globalized markets; high economic development	Developing countries were not considered by the study	Current study analyzed board diversity, IFRS and legal enforcement in EAC firms
Filip, Labelle and Rousseau (2014)	To study the effect of legal structures on FRQ in Canada	Civil/common law, abnormal accruals, magnitude of accruals and conservatism earnings	Civil law countries report higher quality of financial reporting as compared to common law nations	The study was based in Canada with stronger enforcement in relation EAC countries	Current study analyzed the effect of legal enforcement in EAC nations
Kim and Yang (2014)	To assess impact of director tenure on FRQ in Korea	Earnings management, earnings persistence, earnings response coefficient and director tenure	Tenure of directors negatively affects discretionary accruals; persistence of earnings and ERC establish a positive relation with the board tenure	Effects of IFRS adoption and legal enforcement on FRQ was not considered. board diversity attributes were not considered	Current study incorporated IFRS adoption and legal enforcement on the FRQ and board diversity

Author	Study Objective	Study Variables	Findings	Gap(s)	Addressing the Gaps
Omoro (2014)	To analyze effect of top management team diversity, voluntary disclosure & discretionary choices on FRQ of commercial state corporations in Kenya	Earnings management, timeliness, Fundamental qualitative characteristics and disclosure quality	Director age, functional background and tenure in the TMT and CVD influence FRQ, gender and education negatively associated with FRQ	Study reports mixed findings on the effect of TMT diversity on FRQ	Study incorporated legal enforcement and IFRS adoption to analyze board diversity and accounting quality for EAC listed firms
Capkum et al. 2016)	To assess the impact of IAS/IFRS on management of earnings	Mandatory adopters, early and late adopters, and D.A.	IAS/IFRS results in increased management of earnings	Board diversity and legal enforcement were not considered	Board diversity and legal enforcement were analyzed in the current study
Sellami and Slimi (2016)	To examine impact of mandatory transition to IFRS on management of earnings in South Africa	IFRS adoption and earnings management	Mandatory adoption of IFRS results to lower incidences of earnings management	The influence of the legal mechanisms was not considered	The current study documents findings for EAC listed firms incorporating effect of legal enforcement
Tang, et al. (2016)	To analyze the effect of investor protection on the financial reporting quality	Avoidance of loss and profit decline, accruals, audit opinion, non-Big 4 audit firms and audit fees were FRQ measures	Countries having strong investor protection report higher quality of financial information	The effect of adopting IFRS together with firm specific attributes like board diversity were not considered	The study incorporated board diversity and IFRS adoption

Author	Study Objective	Study Variables	Findings	Gap(s)	Addressing the Gaps
Siekkinen (2017)	To evaluate if board attributes influence value relevance of financial information fair values as per IFRS 13	Board attributes, IFRS 13 and value relevance	Director traits influence firm outcomes. Further, the adoption of IFRS 13 results in lowering information asymmetry relating to the reporting of the estimates of fair values	Sample was a shorter duration of time and did not consider the effect of the legal set ups and enforcement mechanisms for the countries analyzed	Current study documented findings for EAC listed firms
Wahid (2018)	To examine gender diversity the effect on earnings restatements	Earnings restatements	Board having gender diverse boards reported less incidences of financial misconduct and fraud	The study was based in the US which has a different regulatory framework than that of EAC	Current study documented findings for EAC listed firms
Alade (2018)	To study the impact of adoption of IFRS on value relevance in Nigeria	IFRS Adoption, Value relevance	Adoption of IFRS enhances accounting quality	The author did not analyze the effect of legal mechanisms and board traits	Current study incorporated the impact diversity in boards and legal enforcement on accounting quality in addition to IFRS adoption
Albitar, Alqatan and Huang	To assess the impact of adoption of IFRS and board traits on	IFRS adoption, board traits and earnings management	Quality of earnings improved post IFRS adoption, no relationship	Effect of legal enforcement was not considered	Current study considers board diversity, IFRS adoption, legal

Author	Study Objective	Study Variables	Findings	Gap(s)	Addressing the Gaps
(2019).	management of earnings in China		was found between board size and management of earnings & board's independence lowered management of earnings after IFRS adoption		enforcement and quality of financial reporting for quoted firms in East African securities exchanges
Amidu and Issahaku (2019).	To determine whether globalization and the adoption of IFRS results to lower levels of management of earnings by African banks	Globalization, IFRS adoption and earnings management	National economies are integrated and African banks reported higher quality financial information after IFRS adoption and globalization.	Study only considered banking sector alone therefore the findings cannot be generalized for other non-banking firms in East Africa	Current study considers all listed firms in the East African securities exchanges
Garefalkis, Lemonakis and Balla (2019)	To analyze effect of corporate governance, adopting IFRS and financial information quality in Greece	IFRS adoption, corporate governance, financial reporting quality	Culture and gender diversities affect accounting quality	Study was conducted in Greece during a crisis period consequently, the findings cannot be generalized for the East African nations	Study documents findings for quoted companies in East African securities exchanges
Kaawaase, et al. (2021)	To examine the effect of corporate governance, internal audit quality and board	Board expertise, internal audit quality, qualitative characteristics of	The board expertise, role execution and internal audit quality significantly affect the quality of financial	Study was only based on financial institutions and based on Uganda it also considered the	Current study considered all listed firms in East Africa

Author	Study Objective	Study Variables	Findings	Gap(s)	Addressing the Gaps
	performance of roles on financial reporting quality	accounting information	reporting	qualitative attributes of financial information only	
Elzahar, et al. (2022)	To analyze the effect of female director attributes on accruals earnings management in the USA	Director tenure, other directorships, earnings management	Female directors' tenure and multiple directorships lowers cases of management of earnings for the studied American firms	The study was done in the USA and only considered on aspect of diversity which is gender. Only one indicator of accounting quality (earnings management) was analyzed	The study included other diversity attributes such as education, functional background, nationality, age, and tenure. Further, current study documents the relationship between diversity of boards and accounting quality for East African Community listed firms using earnings management, value relevance and qualitative attributes of accounting information

Source: Author, 2022

2.9 Conceptual Framework

The conceptual framework model is used to assess the level of which diversity in boards impacts on financial information quality as reported by companies quoted in East African Community's securities exchanges. The relation between diversity in corporate boards, adopting IFRS, legal enforcement and the quality of financial information has resulted in mixed findings and inconclusive results. For the current study, the independent variable was diversity in boards, IFRS adoption was the intervening, moderating variable was legal enforcement and accounting quality, the dependent variable.

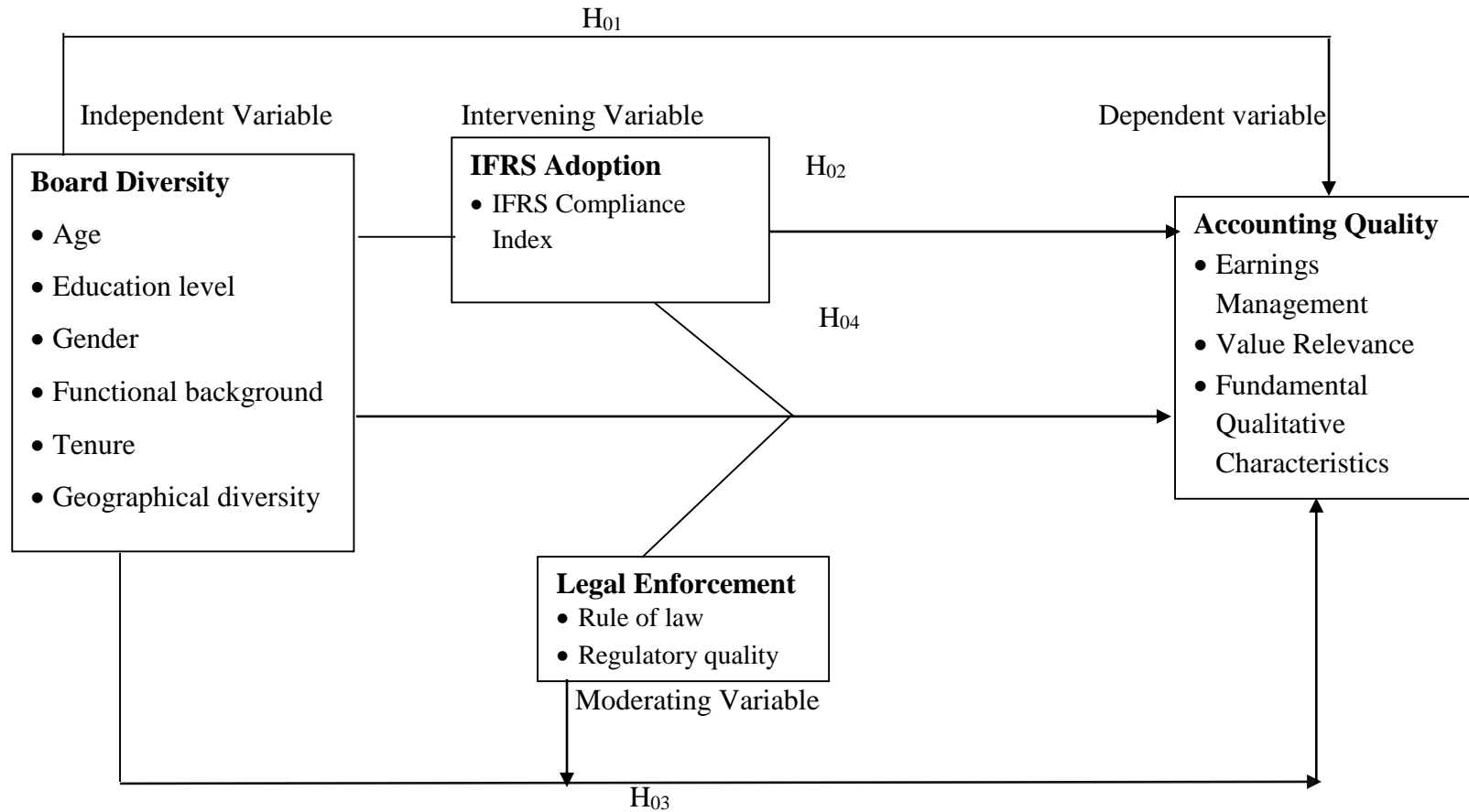
From the reviewed literature, it is expected that a more diverse board is more independent and skilled therefore adequately checks the management activities due to the diverse interests they represent in boards ensuring lower levels of management of earnings in a firm enhancing accounting quality. Board diversity helps the board in their monitoring role due to the self-checking interests within the board.

The adoption of IFRS provides for minimum disclosure of financial information for companies, through guidelines on the minimum disclosure requirements. The adoption of IFRS lowers management discretion in relation to financial reporting consequently resulting to higher quality financial information. Legal enforcement mechanisms in place in a country enhances the monitoring role of the directors in ensuring high quality disclosures are made.

The legal systems in place also serves to punish the non-compliant firms and directors in relation financial reporting malpractices which enhance quality of financial information. The application of IFRS by firms is expected to mediate the relation between board diversity and accounting quality while the mechanism of legal enforcement is expected to

moderate the relation between diversity in boards and the financial information quality for quoted companies in East African securities exchanges. The interrelationship between the research variables is summarized in a conceptual framework which is depicted in the Figure 2.1 below.

Figure 2.1: Conceptual Framework



Source: Author, 2022

Boards of directors oversee the management of firms including financial reporting process. A more diverse board is expected to self-check itself and therefore report higher quality financial information as informed by the various interests represented in a firm's board. The use of harmonized, high-quality standards increases the disclosures made by firms through financial reporting resulting in higher quality financial reports. The application and use of uniform standards presents managers with opportunities to manage earnings through the discretionary choices granted by the accounting standards. Strong legal enforcement is expected to mitigate manipulation of earnings through punishment for breach of expected standards and laws. Therefore, it is expected that diversity in boards, adoption of IFRS and strong legal enforcement enhances the financial reporting quality.

2.10 Research Hypotheses

Arising from the literature reviewed above and in accordance to the objects of the study and further guided by conceptual framework, the study aimed at testing research hypotheses listed below:

H₀₁: Board diversity does not significantly affect accounting quality of listed firms in the East African Community securities' exchanges

H₀₂: The adoption of IFRS does not significantly mediate the relationship between board diversity and Accounting Quality of firms listed in the East African Community securities' exchanges

H₀₃: Legal Enforcement does not significantly moderate the relationship between board diversity and Accounting Quality of firms listed in the East African Community securities' exchanges

H₀₄: Board diversity, IFRS adoption and Legal Enforcement jointly do not significantly affect the Accounting Quality of firms listed in the East African Community securities' exchanges

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

A brief description of the research philosophy that guided the research, the design of the research, the study's target population, approaches to data collection, the operationalization of the research variables and finally techniques of data analysis used is presented in details in this section.

3.2 Research Philosophy

Philosophy of research relates to a belief on the means whereby data relating to a fact that is observable will be sourced, analyzed and utilized. It forms the basis of knowledge as well as stipulate nature of knowledge. Two main research philosophies guide social science research namely; positivism paradigm and phenomenological paradigm. Phenomenological philosophy may be qualitative, humanistic, interpretive paradigm or subjectivist whereas a positivist paradigm may be referred to as objective, scientific, traditionalist research or quantitative research paradigm. Phenomenological approach aims at having a clear comprehension of not just the human traits or behavior but to comprehend actions, it aims at enhancing the understanding of meaning, feelings, attitude and beliefs of various actors in a given situation. Phenomenology does not rely on prior theories to build perspectives on current research matter. Positivism relies on hypothetically deducing an approach to verify a prior hypothesis that is often quantitatively expressed and a functional relationship between explanatory, causal factors and their outcomes. Positivist research aims at generating either causal or explanatory relationships resulting in prediction of the phenomena under investigation, it is founded on objective inquiry, evidence-backed truth obtained from clearly documented approach (Blumberg et al., 2005).

The study adopted positivism philosophy of research because the study was founded on an existing body of knowledge (theories), after which relevant literature was reviewed, a conceptual framework was developed and scientifically formulated hypothesis from which observations were deduced in order to falsify the stated hypothesis which was verified by use of empirical testing. Positivism research philosophy relies on use of large samples which are applied in the study. The research data's quantitative nature suited the choice of positivist research philosophy in analyzing the study variables since the samples and the firm-year observation constituted a large sample. In determining the relation of board diversity, application of IFRS, legal enforcement, and accounting quality for EAC enterprises, the positivist paradigm allows for the application of various statistical approaches in the analysis of data, operationalization of hypothetical ideas, and generalization of conclusions.

3.3 Research Design

In research, a research design lays the basis for undertaking research. Theoretically, there are three types of study designs: descriptive; exploratory and causal. Because the goal current study, was, to discover the link between diversity of boards, adopting IFRS, legal enforcement, and financial reporting quality, it used a descriptive, cross sectional research approach (Sanders et al., 2007).

The descriptive design was chosen since it involves describing of a phenomena or associated traits with the subject's population, that is, when, what, how, who, what, when and the where of the subject. The descriptive research design allowed for analysis of the

director attributes in relation to the diversity aspects of a board: gender; age; tenure; education level; functional background and geographical background of the directors. Descriptive research design allowed for the utilization of estimates of proportions or sections of a population of the directors and firms with attributes of interest to the researcher. The discovery of associations between the board diversity, IFRS adoption, legal enforcement and accounting quality was possible so as to determine their independence or lack of association and the strength or magnitude of relationships (Sanders et al., 2007).

3.4 Target Population

The population in a study relates to a wide range of services, individuals, activities, groupings of items or households that are under investigation (Sanders et al., 2007). The study's target population consisted of all the companies quoted in East Africa Securities' exchanges, totaling to one hundred and sixteen (113) firms as at 31st December, 2019 (Appendix1). This is distributed as NSE 66 firms, DSE 25 firms, USE 16 firms and RSE 6 firms. The study eliminated 20 cross listed firms due to the requirement of IFRS requiring preparation of group consolidated financial statements by their parent companies which are listed in other East African markets. Further, those which were not consistently listed for the eight years of the study and those whose financial reports were not available for the entire eight years of the study were eliminated from the study. After elimination of cross listed firms, those that were not listed consistently for the eight years of the study and those whose financial reports were not consistently available for eight years of the study, it was established that only 53 firms out of the 93 met the criteria above and were therefore considered for analysis.

The fact that these firms have well organized structure, legal mandates to function, and the accessibility of financial records to support the study variables influenced the selection of the listed companies in EAC. This is backed by the various regulatory mechanisms put in place that listed firms have to comply with in their operations and financial reporting processes in order to guarantee investor confidence.

3.5 Data Collection

From the quoted firms' annual financial reports in East African Community companies for the years 2013 to 2020, for firms that were consistently listed over the period and those for which the data sought for the study was available were considered for the current study. Secondary data was obtained on: the board of directors; IFRS implementation; qualitative attributes of financial accounting; management of earnings; and the value relevance of reported financials. Primary data was gathered from the CFOs and senior finance staff of the listed companies who have responsibility in preparing the firm's financial reports and were therefore considered knowledgeable to provide the qualitative information sought about the firm. The primary data was then used to check and validate secondary data on the qualitative aspects of reported financial information, by averaging the two scores from both secondary and primary data sources for each firm since the tool for secondary data collection was principally the same to the questionnaires. The firms' annual financial reports provided information on directors such as: age; education; nationality; tenure; functional background and gender, the information was later updated on the board diversity data collection tool.

Blau index was used to measure diversity in boards, IFRS compliance index, evaluating compliance to IFRS, was developed based on IASB's IFRS disclosure checklist, a percentage score was given for each firm. Annual reports were obtained from the respective companies; questionnaires were administered to finance officers of the listed firms to validate data on the qualitative characteristics of the financial information. Legal enforcement data was sourced from the World Bank's world governance index, which is a data set comprising views on of governance quality as expressed by the citizens, corporations and experts. Specifically, the quality of regulations, which reflects the general perceptions relating to the capacity of governments to develop and enact sound governance legislations allowing for the private sector to thrive, and the rule of law, which assesses the perceptions of various agents have faith in and abiding by the societal rules. Data on the two legal enforcement indicators were extracted from the WGI's 2020 index estimates for each country and for each year under study, this data was then matched to each country using the legal enforcement tool for data collection.

3.6 Validity and Reliability

The validity of an instrument relates to how much it measures what it promises to assess. The qualitative characteristics of financial information data's validity was assessed through a pilot study of 8 questionnaires, further improvements were then made to the questionnaire as was informed by the feedback from the responses to the pilot study. The questionnaires were deemed fit for distribution in collection of the research data.

A measure's reliability is determined by two factors: its resilience over time and its consistency in measuring the concept under test. The Cronbach alpha coefficient, which evaluates internal consistency and reliability of factors being analyzed across repeated observations, was used to test reliability in current study for the qualitative attributes of the information reported in the financial statements, information from primary data was collected to validate secondary data from financial statements. Cooper and Schindler, (2008), observe that high value often indicates a more generalizable scale. Cronbach alpha coefficient of above 0.7 is considered reliable to make decisions about the study variables (Cronbach, 2004). Because it measures the dependability of test scores from a given set delivered utilizing information out from interrelationship of items under test, the coefficient is regarded suitable. Additionally, it provides a reliability metric based mostly on covariation between various test items (Shavelson, 2004). The Cronbach alpha for the qualitative properties of financial information was 0.712 from the 18 questions in the questionnaire, this was found sufficient for the study. See Table below.

Table 3.1 Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.712	18

Source: Research Data, 2022

3.7 Operationalization of Research Variables

The study variables were operationalized as was guided by empirical studies analyzed and conceptual framework. A summary of the operational definition of the study's variables is presented below in Table 3.1.

Table 3.1: Operationalization of Study Variables

Variable	Proxy for Variable	Measurement	Data Source/ Reference
Independent Variable Board Diversity of the board	Functional background (FUNC), Geographical diversity (GEOG), Gender (GEN), Education (EDU)	Blau Index (BI) = $1 - \sum P_{ij}^2$ Functional background is categorized as: marketing, disciplined forces, HR, accounting & finance, public administration, academia, entrepreneurship, procurement, economics, law and banking, engineering and others Geographical diversity categorized as: Proportion of Kenyans or non-Kenyans Gender diversity categorized as proportion of either male or female Education diversity categorized as per education level of directors (O-level, Certificate, Diploma, Bachelors, masters and PhD)	Annual report Omoro (2014)
	Age (AGE) and Tenure (TEN)	Coefficient of variation (CV) = δ/μ (age and tenure were separately analyzed) Each director's age was calculated using the natural log of his or her years since birth and Tenure was assessed by the number of years since first appointment in the board	
Moderating Variable IFRS Adoption	IFRS Adoption index	Data capture form derived from the IFRS Disclosure checklist to test IFRS application by firms in financial reports, the percentage for each applicable standard for the firms for each year was then aggregated for each year per firm.	Annual report/ CFOs Alade (2018) & IFRS Disclosure checklist
Intervening Variable Legal Enforcement	Regulatory quality Index	It evaluates ability of government to create and enforce effective guidelines and restrictions that support and enable the private industry.	World Governance Index
	Rule of law	It tests the confidence and adherence to set rules on contract enforcement, property rights, belief in courts, police and possibility of crime and violence	
Dependent Variable Accounting quality	Earnings management (Discretionary Accruals)	To determine discretionary accruals, the study used Modified Jones (1991) model, as employed by Dechow et al. (2006): $DAC_t = \frac{TACC_t}{A_{t-1}} - NDAC_t$ (DAC – Discretionary Accruals: NDAC – Non-discretionary Accruals & TACC – Total Accruals)	Annual report Omoro (2014)
	Qualitative Characteristics	Use of data capture form to collect data on qualities of: Understandability, Relevance, Faithful representation, Understandability, Timeliness	Annual report / CFOs Omoro (2014)
	Value relevance	Olsson Model $P_{it} = \beta_0 + \beta_1 BVPS + \beta_2 EPS + \varepsilon$ P – Share six months following the end of the fiscal year: BVPS – Book value per share: EPS – Earnings per share	Annual report Outa (2011)

Source: Author, 2022

3.8 Measurement of the Accounting Quality

Accounting quality is the study's dependent variable. Despite there not being a universally accepted definition or measure of the quality of financial information, this study used discretionary accruals, fundamental qualitative characteristics, and the value relevance of the financial information as proxies to ascertain the quality of accounting information. The proxies are discussed below;

3.8.1 Earnings Management

The financial information quality was measured using management of earnings as a proxy. Specifically, discretionary accruals was applied to assess the management of earnings. Discretionary accruals has widely been used for measuring earnings management owing to its wide acceptance (Kaaya, 2015). Discretionary accruals has mostly been statistically assessed using Jones (1991) and its subsequent modifications by (Dechow et al., 1995). Some studies have used a cross-sectional adaptation of Jones (1991), in which ordinary accruals are treated as a component of revenue fluctuations and the levels of property, plant, and equipment (VanTendeloo and VanStream, 2005; Becker et al., 1998). Emamgholipour et al. (2013) employed an adapted Jones (1991) model or the Dechow, et al., model (1995) model to analyze earnings management. Modified Jones model was observed as being highly appropriate and strong test for investigation of earnings management and as a result highly recommended (Emamgholipour et al., 2013; Kaaya, 2015). As a result, the current study uses a refined Jones (1991) approach to assess firm earnings management listed in East Africa Community countries. Based on prior research the researcher adopts the modified Jones (1991) to determine discretionary accruals as among the study's proxy for the dependent variable.

$$\text{TACC} = \text{Net Income} - \text{Cashflow from Operations} \dots \dots \dots \text{Equation 1}$$

Where, TACC indicates total accruals

The author divides accruals between discretionary and non-discretionary accruals by adding the TACC figure further into modified Jones (1991) model as follows:

$$\frac{\text{TACC}_t}{A_{t-1}} = \alpha_1 \left[\frac{1}{A_{t-1}} \right] + \alpha_2 \left[\frac{\Delta \text{Rev}_t - \Delta \text{Rec}_t}{A_{t-1}} \right] + \alpha_3 \left[\frac{\text{PPE}}{A_{t-1}} \right] + \varepsilon \dots \dots \dots \text{Equation 2}$$

The weighted least squares model was used to obtain the values of the coefficients α_1 , α_2 and α_3 which was then used to separate the discretionary from the non-discretionary accruals. Revenue (Rev) and fixed assets (PPE) indicate business growth. The equation 2 above gives non-discretionary accruals or the normal accruals since they are not based on managerial discretion. The equation below was used to assess discretionary accruals:

$$\text{NDAC}_t = \alpha_1 \left[\frac{1}{A_{t-1}} \right] + \alpha_2 \left[\frac{\Delta \text{Rev}_t - \Delta \text{Rec}_t}{A_{t-1}} \right] + \alpha_3 \left[\frac{\text{PPE}}{A_{t-1}} \right] + \varepsilon \dots \dots \dots \text{Equation 3}$$

Discretionary accruals is then arrived at by subtracting the non-discretionary accruals arrived at in equation 3 from the total accruals as determined in equation 1, the following equation was applied

$$\text{DAC}_t = \frac{\text{TACC}_t}{A_{t-1}} - \text{NDAC}_t \dots \dots \dots \text{Equation 4}$$

Where;

TACC_{it} = Total Accrual for i in year t

NDAC_{it} = Non – discretionary accrual for firm i in year t

DAC_{it} = Discretionary Accruals for firm i in year t

ΔRev_{it} = Change in Revenue or income value for firm i in year t compared to year t – 1

ΔRec_{it} = Change in Account receivables for firm i in year t compared to year t – 1

PPE_{it} = Gross Property, plant and Equipment of firm i in year t

ε = Error term

The discretionary accruals arrived at in equation 4 was then be utilized as the dependent variable to analyze the effects of BOD diversity, IFRS adoption and audit quality on accounting quality EAC listed firms.

3.8.2 Value Relevance Measurement

If reported revenues have a statistical relationship to market valuation, such as share prices, financial reporting is said to have been value relevant. Value relevance is another common measure for assessing financial reporting quality. It measures the statistical association of reported figures in annual financial reports and their market values. Value relevance associates the firm's value as indicated by market prices of its share to the reported information in financial position statement and statement of comprehensive incomes. According to Outa (2011) IFRS adoption was expected to enhance or improve the book values reported at the expense of net incomes. Barth et al. (2011) and Outa (2011) regressed the stock price on a firm's fixed assets and the residuals out of the regression of book values and the net income (per share). The EPS value regression coefficient from the regression equation below was utilized to determine the value relevance.

$$P_{it} = \beta_0 + \beta_1 BVPS + \beta_2 EPS + \varepsilon \dots \dots \dots \text{Equation 5}$$

Where P_{it} – Share price, six months after end of the financial year

BVPS – Book value per share

EPS – Earnings per share

β_1 & β_2 – Regression coefficients

β_0 – Constant

ε – error term

3.8.3 Measurement of Fundamental Characteristics of Accounting Information

Following the IASB's 2008 exposure draft on accounting information's fundamental characteristics, the current study adopts understandability, relevance, faithful representation and timeliness properties as measures of financial reporting information quality. So as to analyze the above measures, a Likert scale (five-point) was applied to assign scores to the elements of financial statements disclosed as proposed by IASB (2008) and Mahdarikhou and Khotanlou (2011). Questions were prepared by Jonas and Blanchet (2000) as well as Lee, et al. (2002) in respect to various qualitative attributes of financial accounting used to assess its quality, they group the qualitative characteristics into two: fundamental qualitative characteristics useful in determining the contents of financial reports and enhancement of qualitative attributes useful for enhancing the qualitative characteristics. A 21-item index to determine accounting quality for quoted firms in United State and the United Kingdom was developed by Beest, Braam and Boelens (2009), thus confirming reliance of the measure in assessing the quality of accounting information.

The current study adopts Beest et al. (2009) 21-item index to evaluate the fundamental characteristics of financial information among listed firms in East Africa countries stock markets. The questions assess financial attributes as well as the non-financial attributes of

accounting data. Points were awarded for each question which were then be used to assign standardized scores for each qualitative attribute. The average of the standard scores was used to guarantee that each qualitative trait was equally weighted. The scores ranged between 1 and 5, with 1 indicating low quality of information while 5 represents high quality information, the scores were then aggregated and a percentage determined for each firm for each year, this was then used to validate the secondary information from the financial reports.

3.9 Data Analysis

The study variables were described using descriptive statistics, while the study hypothesis was tested using stepwise multiple regression and OLS. To test for mediation, regression was performed on accounting quality and board diversity; next a regression on adopting IFRS and the quality of financial information; thirdly, regression analysis to test the relation between adopting IFRS and the quality of reported financial information; lastly, a regression test to test the impact of adopting IFRS on BOD diversity and financial information quality. If the independent predicts the dependent, the independent explains the intervening, and the intervening explains the dependent while also still predicts the dependent once the mediating variable is included, mediation exists. To ensure that the models were applicable, diagnostic tests for multicollinearity, linearity, normalcy, and heteroscedasticity were carried out.

The study employed Baron and Kenny's (1986) test of moderation, this involves test of board diversity, legal enforcement and an interaction term between BOD diversity and legal enforcement (BDIV*RQUAL) and (BDIV*RLAW) on accounting quality. To create the

interaction term, board diversity and IFRS adoption measures was centered to get a single indicator. The new variable was created by multiplying the two indicators. If the interaction term's p-value is greater than significance, no moderation is supported. Multiplication may result in multicollinearity problems, as a result, variables were transformed into normalized (z) values with a zero mean and one as the standard deviation, after which the two variables were then multiplied to obtain the interaction term. Table 3.2 highlights a summary of statistical tests below.

Table 3.2: Research Hypothesis Summary

Objective	Hypothesis	Analytical Model	Interpretation
To assess the impact of board diversity on quality of accounting	Board diversity does not significantly affect AQ	OLS Model $AQ_1 = \beta_0 + \beta_1 BDIV + \varepsilon_1$	Sig<5%, reject hypothesis. Relationship exists if β_1 is significant
To analyze the impact of adopting IFRS on the association between board diversity and AQ	IFRS adoption do not intervene significantly the relations between BOD diversity and AQ	Analysed as follows: i) $AQ_2 = \beta_0 + \beta_1 BDIV + \varepsilon_1$ ii) $IFRS = \beta_0 + \beta_1 BDIV + \varepsilon_2$ iii) $AQ_3 = \beta_0 + \beta_1 IFRS + \varepsilon_1$ iv) $AQ_4 = \beta_0 + \beta_1 BDIV + \beta_2 IFRS + \varepsilon_2$	Baron & Kenny (1986), mediation exists if each of the four equations are significant.
To determine the effect of legal enforcement on the relations between diversity of boards	Legal Enforcement does not significantly moderate the relation between diversity of boards and AQ	Stepwise regression v) $AQ_5 = \beta_0 + \beta_1 BDIV + \beta_2 LENF + \varepsilon_3$ vi) $AQ_6 = \beta_0 + \beta_1 BDIV + \beta_2 LENF +$	If P<5%, reject hypothesis. Mediation exists if each of the two equations are significant

Objective	Hypothesis	Analytical Model	Interpretation
and AQ quality		$\beta_3((BDIV)*(LENF)) + \epsilon_3$	
To assess the joint impact of board diversity, adopting of IFRS and Legal Enforcement on AQ	Adoption of IFRS and Legal Enforcement jointly and significantly does not affect the relation between board diversity and AQ	Stepwise regression analysis $AQ_7 = \beta_0 + \beta_1 BDIV + \beta_2 IFRS + \beta_3 LENF + \epsilon_4$	Sig<5%, reject hypothesis. Joint effect exists when one of β_1, \dots, β_3 are significant

Source: Author, 2022

CHAPTER FOUR

ANALYSIS AND PRESENTATION OF DESCRIPTIVE DATA

4.1 Introduction

A description of study's statistics on the research variables is presented through this chapter. Further, presentation of the pilot study, discussion of the study's response rate, and the descriptive statistics results of board diversity, IFRS adoption, rule of law, regulatory quality, earnings management, fundamental qualitative characteristics and value relevance of financial information. Skewness, kurtosis, means, standard deviation, frequencies, and the coefficient of variation were utilized to assess descriptive statistics.

4.2 Pilot Study

The study obtained qualitative characteristics data through primary data therefore, questionnaires from the companies quoted in the East African Community Securities Exchanges. As a result, a pilot study was required to guarantee questionnaire effectiveness in gathering the required data. Prior to piloting the tool was discussed with the research supervisors to improve the tool's validity for collecting data. The questionnaires were then sent to ten finance executives from publicly traded companies. This was required so as to assess' the questionnaire's face and content validity. During piloting the respondents helped to check the clarity of the questions and to make the content be easily understood. Consequently, amendments were made on the initial questionnaire to drop the unnecessary and inappropriate parts and restructuring to enhance understandability of the tool.

Data collection tool's reliability was tested using Cronbach's alpha which was calculated for all the questions in the questionnaire. For the qualitative characteristics instrument the

Cronbach value was 0.72 indicating high reliability of the instrument. Generally, A Cronbach number near 1 suggests that the instrument is highly reliable. The pilot study's results were included in the final analysis since the errors were minimal.

4.3 Response Rate

The study's target population was all of the East Africa Stock Exchange's listed companies, totaling to one hundred and sixteen (113) firms as at 31st December, 2019. Out of the 113 firms targeted, 20 cross-listed firms were eliminated leaving a total of 93 firms. A total of 53 firms were analyzed for the study after elimination of firms whose data was not consistently available for the 8 years of the study from 2013 to 2020. This corresponded to a response rate of 57 percent, which was considered to be adequate for evaluating the relationship between board diversity, IFRS adoption, legal enforcement and financial information quality of companies quoted in the East Africa Securities' exchanges.

4.4 Descriptive Statistics

The descriptive statistics for the study's research variables board diversity, adoption of IFRS, legal enforcement and quality of accounting information for quoted firms in the East African Community securities' exchanges. Board diversity attributes analyzed were based on the: directors' age, directors' gender, directors' tenure, level of education, functional background and geographical attributes of the directors of listed companies in the East Africa's securities markets. The metrics of management of earnings; financial information's value relevance and qualitative aspects of financial information were used to measure accounting quality. The variables statistics are summarized in the section below.

4.4.1 Board Diversity Descriptive Statistics

The study adopted Blau's index in determining the level of diversity for boards of directors for quoted firms. The diversity of boards was assessed on the basis of age, gender, tenure, educational background, functional background and geographical attributes of the directors. The study observed that the most diverse attributes were director tenure with an index of .72, functional diversity with an average index of .68 and educational diversity index of 0.57. The rest of the attributes of geographical background, gender and age diversities had indices less than 0.5 indicating low levels of diversity. The least diverse attribute was age meaning that the directors in East African firms were relatively of the same age brackets. The maximum diversity attribute was the director's tenure index of 1.0 while the minimum index was 0.00 on age, geographical background, educational level and gender, this means that some firms are composed of directors of only one gender, same age brackets, same nationality and same level of education. Age diversity was positively skewed (0.71) meaning that the mean index of age was greater than the median. Functional diversity, geographical diversity, gender diversity, education diversity and tenure diversity were negatively skewed (-0.731, -0.187, -0.743, -1.170 and -0.391 respectively) this means that the mean values of the indices were less than the median index values for the diversity attributes above. Functional diversity, education diversity and age diversity had positive kurtosis values of (0.317, 1.094 and 2.199 respectively) meaning the distribution is more peaked than normal distribution. This therefore necessitated the standardization and normalization of the distribution before testing of the research hypothesis. Board diversity attributes revealed a higher variability from the mean with the highest being on geographical diversity (79%) and the least variability was observed on the functional diversity (13%). This data indicates high variability of the diversity attributes justifying the use of the study's variables. The Table 4.1 below summarizes the above findings.

Table 4.1: Descriptive Statistics for Board Diversity of Listed Firms in East Africa

	N	Min	Max	Mean	Std. Deviation	CV	Variance	Skewness		Kurtosis	
							Statistic	Statistic	Std. Error	Statistic	Std. Error
FUNC	424	0.38	0.84	0.68	0.09	0.13	0.01	-0.73	0.12	0.32	0.24
GEOG	424	0.00	0.50	0.25	0.20	0.79	0.04	-0.19	0.12	-1.58	0.24
GEN	424	0.00	0.50	0.30	0.14	0.45	0.02	-0.74	0.12	-0.12	0.24
EDUC	424	0.00	0.80	0.57	0.15	0.27	0.02	-1.17	0.12	1.09	0.24
AGE	424	0.00	0.44	0.18	0.06	0.33	0.00	0.71	0.12	2.20	0.24
TEN	424	0.07	1.00	0.72	0.20	0.27	0.04	-0.39	0.12	-0.72	0.24
Valid N (listwise)	42										

Source: Research Data, 2022

4.4.2 Accounting Quality Descriptive Statistics

The dependent variable of the study was accounting information quality, this was evaluated by use of three measures: financial data value relevance; management of earnings and qualitative attributes of financial information. These proxies were analyzed by use of several models as had been highlighted in chapter three of the current study. Results of the study indicates earnings management and qualitative characteristics were negatively skewed (-9.21 and -0.23 respectively) indicating that the mean values for these variables were lower than the median values. Value relevance on the other hand was positively skewed (1.91). The mean value of discretionary accruals was -1.77, value relevance mean value was 3.9 while qualitative characteristics had an average of 0.62. The least discretionary accruals value was -156.72 and the maximum was 2.47 indicating minimal instances of earnings management in East African listed firms. Value relevance had an average of 3.90 with a low value of -10.81 and a high of 35.40 indicating a big range across firms and years studied. Qualitative characteristics property of accounting information had

a mean value being 0.62 out of 1 with the least value being 0.46 and the highest value was 0.62. Discretionary accruals and value relevance had a positive kurtosis value of 84.24 and 4.77 respectively, meaning that the data is more peaked than a normal distribution. Qualitative characteristics had a negative kurtosis value. Coefficient of variation results indicate very high variability of the discretionary accruals and value relevance (-868% and 209% respectively). This indicates very high deviations of the data from the mean. This can be justified by differences in the company size, affecting the assets, revenues, liabilities and pricing of the firms' shares. Qualitative characteristics indicated a moderate variability of 8% from the mean, this is due to the standardization of the data collection tools. Table 4.2 below indicates a summary of accounting quality values.

Table 4.2: Descriptive Statistics for Accounting Quality of listed Firms in East Africa

	N	Minimum	Maximum	Mean	Std. Deviation	CV	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic		Statistic	Std. Error	Statistic	Std. Error
QXSTCS	424	0.46	0.75	0.62	0.05	8%	-0.23	0.12	-0.30	0.24
DISCACC	424	-156.72	2.47	-1.77	15.34	-868%	-9.21	0.12	84.24	0.24
VREL	424	-10.81	35.40	3.90	8.13	209%	1.91	0.12	4.77	0.24
Valid N (listwise)	424									

Source: Research Data, 2022

4.5 Board Attributes of Listed Firms in East African Community Securities Exchanges

Board diversity was assessed in terms of the age of the directors, tenure since appointment as directors, educational level, functional background, gender and geographical representation on boards. The following section documents the summaries of each of the

above-board attributes analyzed in determining the board’s diversity of quoted companies in East African Community securities exchanges.

4.5.1 Geographical Representation of the Board of Directors

It was observed that Kenyans made up 59 percent of the members of the board of East African listed companies, 6% were Ugandan, 10% were Tanzanians while the British accounted for 7% of the East African directors. The rest of the countries had less than 7% each. This can be attributed to the many Kenyan listed firms, out of the 4,103 directors analyzed were 3,176 (77.4%) East African nationals while 927 (22.6%) of the directors in listed firms are drawn from non-east African countries. It can be concluded therefore that the majority of the directors are nationals of the East African countries. Presentation of the above information is highlighted in Table 4.3 below.

Table 4.3: Distribution of Geographical Representation of the Board of Directors

	KENYA		TANZANIA		UGANDA		RWANDA		TOTAL	
	Freq		Freq		Freq		Freq		Freq	
Kenyan	2369	76%	21	4%	3	1%	8	4%	2401	59%
Ugandan	28	1%	0	0%	221	73%	0	0%	249	6%
Tanzanian	60	2%	354	73%	0	0%	0	0%	414	10%
Rwandan	8	0%	0	0%	0	0%	104	55%	112	3%
American	36	1%	10	2%	3	1%	8	4%	57	1%
British	238	8%	18	4%	15	5%	16	8%	287	7%
South African	112	4%	41	8%	29	9%	8	4%	190	5%
French	103	3%	0	0%	0	0%	0	0%	103	3%
Dutch	20	1%	26	5%	0	0%	13	7%	59	1%
Others	156	5%	15	3%	30	10%	30	16%	231	6%
	3130		485		301		187		4103	100%

Source: Research Data, 2022

4.5.2 Board of Directors Education

The current study assessed the level of diversity of boards in relation to the education level for the companies that listed in East African Community countries' exchanges. The levels of educations were classified as: PhD, masters, post-graduate diploma, bachelors, diploma, certificate, o-level and others. The study established that most East African directors had master's degrees at 42%, followed by bachelor's degree at 38%, the rest of the education levels had less than 10% each. Country analysis establishes that Tanzania had 56% of their directors having master's degree as their highest level of education and 26% of the directors had bachelors, Rwanda had 37% with bachelors as the highest education level and 51% had masters' degrees. In Uganda, 32% of the directors had masters' degrees and 40% of the directors had bachelors' degrees. In Kenya 40% of the directors had masters' degrees and 40% of directors had bachelor's degrees. For the East African firms, it was established that 88% of the directors had at least a bachelor's degree. The board of directors' educational analysis summaries are depicted in the Table 4.4 below.

Table 4.4: Distribution of Education Levels for East African Firms Directors

	KENYA		UGANDA		TANZANIA		RWANDA		TOTAL	
EDUCATION	Freq		Freq		Freq		Freq		Freq	
O Level	125	4%	10	3%	22	5%	0	0%	157	4%
Certificate	187	6%	32	11%	18	4%	11	6%	248	6%
Diploma	63	2%	0	0%	0	0%	0	0%	63	2%
Bachelors	1252	40%	120	40%	129	27%	69	37%	1570	38%
Masters	1252	40%	95	32%	274	56%	96	51%	1717	42%
PHD	219	7%	33	11%	42	9%	7	4%	301	7%
Post Grad. Dip.	31	1%	11	4%	0	0%	0	0%	42	1%
Others	1	0%	0	0%	0	0%	4	2%	5	0%
	3130		301		485		187		4103	

Source: Research Data, 2022

4.5.3 Board of Directors Functional Background

The functional background relating to the specializations of the directors was grouped in either: marketing, disciplined forces, human resource management, accounting and finance, public administration, academia, entrepreneurship, procurement, economics, law and banking, engineering and others. From the results of the study, accounting and finance specialization and the specializations categorized as others were the most popular among East African directors with 31% and 32%, the rest of the specializations had less than 13%. This is confirmed by the country analysis where in Kenya accounting and finance had 32%, 34% in Tanzania, 27% in Uganda and 19% in Rwanda. The above findings summary is presented in table 4.5 below.

Table 4.5: Functional Background Distribution of East African Firms Directors

	Kenya	%	Uganda	%	Tanzania	%	Rwanda	%	Total	%
Marketing	72	2%	6	2%	0	0%	0	0%	78	2%
Discipline forces	6	0%	0	0%	0	0%	6	3%	12	0%
Human Resource	25	1%	17	6%	0	0%	0	0%	42	1%
Accounting & Finance	989	32%	80	27%	163	34%	35	19%	1267	31%
Public Administration	5	0%	1	0%	0	0%	2	1%	8	0%
Academia	0	0%	0	0%	0	0%	0	0%	0	0%
Entrepreneurship	0	0%	0	0%	0	0%	0	0%	0	0%
Procurement	4	0%	0	0%	0	0%	0	0%	4	0%
Economics	333	11%	33	11%	73	15%	67	36%	506	12%
Law	364	12%	36	12%	53	11%	25	13%	478	12%
Engineering	312	10%	29	10%	46	9%	14	7%	401	10%
Others	1020	33%	99	33%	150	31%	38	20%	1307	32%
Total	3130		301		485		187		4103	100%

Source: Research Data, 2022

4.5.4 Board of Directors Gender Distribution

The study analyzed gender as one of the diversity attributes of boards. It was discovered that majority of the directors (79%) were male, with female directors only accounted for 19% of the directors in companies that are listed in East African securities markets. Tanzania had the highest proportion of male directors at 83% followed by Kenya at 79% and Uganda at 78% while Rwanda had 78% male directors. The highest percentage of female directors was in Rwanda and Uganda both at 22%, followed by Kenya at 21%. The least female representation was established in Tanzania at 17%. From the above it can be observed that East African countries are still patriarchal societies where men are dominant as witnessed in the board appointments as is documented Table 4.6 below.

Table 4.6: Gender Distribution of East African Firms

	KENYA		UGANDA		TANZANIA		RWANDA		TOTAL	
	Freq		Freq		Freq		Freq		Freq	
Male	2473	79%	235	78%	403	83%	146	78%	3257	79%
Female	657	21%	66	22%	82	17%	41	22%	846	21%
TOTAL	3130	100%	301	100%	485	100%	187	100%	4103	100%

Source: Research Data, 2022

4.5.5 Board of Directors Tenure

Director tenure was analyzed to determine the diversity of board tenure. To determine this the number of years since appointment to the board was considered. The study's findings revealed that Kenya had the highest average director's tenure at 6.58 years, Tanzania's average tenure was 4.89 years, Uganda had the average tenure of 4.65 years, and Rwanda had the least average tenure at 4.66 years. The maximum tenure was 46.5 years in Kenya while the least tenure was 0.08 years in Kenya, Uganda and Rwanda. Kenya had the highest

standard deviation from the mean of 6.02 meaning there was a high variation from the average tenure of directors. This is also confirmed by the highest range in director tenure in Kenya at 46.42 years. The coefficient of variation indicates a fairly low variability with the highest being 91% and the least being 68%, this indicates low variation from the mean tenure of directors. A summary of above findings is highlighted in Table 4.7 below.

Table 4.7: Board of Director Tenure

	Mean	Mode	Median	Max.	Min.	Range	Std Dev.	CV	Skewness	Kurtosis
Kenya	6.58	1.5	4.75	46.5	0.08	46.42	6.02	91%	1.85	4.73
Uganda	4.65	4	4.08	17	0.08	16.92	3.14	68%	0.98	1.89
Tanzania	4.89	2	3.50	23	0.17	22.83	4.32	89%	1.78	3.50
Rwanda	4.66	1.75	3.56	15	0.08	14.92	3.24	70%	1.16	0.76

Source: Research Data, 2022

4.5.6 Board of Directors Age

The director's age was one of the attributes analyzed in determination of the board diversity of the East African listed firms. From the study it was established that the minimum director age was 25 years while the oldest director was 91 years of age. On average Rwanda had the youngest board of directors in East Africa at 49 years while Uganda had the oldest directors at an average age of 58 years. In Kenya and Tanzania, the average age of director was 56.57 and 55.45 years respectively. The highest range of directors' age was 62 years in Kenya followed by Uganda at 60 years. Tanzania and Rwanda had the lowest difference between the youngest and the oldest director age at 43 and 46 years respectively. The results of the coefficient of variation analysis indicate low variability from the mean age, the highest variation was reported in Rwanda (24%) and the lowest was reported in

Tanzania (17%). This indicates that there was a higher deviation in the age of directors in Rwanda and the least variation in directors age was reported in Tanzania. A summary of director's ages is depicted in the Table 4.8 below.

Table 4.8: Board of Directors' Age

	Mean	Mode	Median	Max.	Min.	Range	Std Dev	CV	Skewness	Kurtosis
Kenya	56.57	49	56	87	25	62	10.06	18%	0.14	-0.39
Uganda	58.46	55	57	91	30	61	11.46	20%	0.61	1.09
Tanzania	55.45	66	56	77	31	46	9.59	17%	-0.14	-0.91
Rwanda	49.33	44	46	74	31	43	11.99	24%	0.57	-0.86

Source: Research Data, 2022

4.6 International Financial Reporting Standards

The current study's intervening variable was the International Financial Reporting Standards (IFRS), that was examined using the IFRS compliance index. The results of the study revealed that the IFRS's are generally complied with, as evidenced by the mean of 78 percent. This is due to stringent compliance requirements that quoted companies have to comply with. The least score was 46% while the highest score was 93%. The variance (0.006) and standard deviation (0.07) indicate low levels of variations on IFRS data. Results of the coefficient of variation indicates a variability of 9% from the mean, indicating a low level of variability attributable to the use of IFRS based reporting templates. The IFRS descriptive statistics are presented in the Table 4.9 below.

Table 4.9: IFRS Descriptive Statistics

	N	Min	Max	Mean	Std. Dev	CV	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic		Statistic	Std. Error	Statistic	Std. Error
IFRS	424	0.46	0.93	0.78	0.07	9%	-0.623	0.12	0.72	0.24
Valid N (listwise)	424									

Source: Research Data, 2022

4.7 Legal Enforcement

Legal enforcement was assessed based on world governance indices (WGI) of the World Bank from 2013 to 2020. The data used was an estimate that ranged between -2.5, (weak), to 2.5, (strong) based on numerous data sources around the world. The moderating variable was legal enforcement since it would bring out the intercompany variations in relation to legal enforcement mechanisms. The study used both the rule of law and regulatory quality as measures of the legal enforcement. From the data it can be observed that generally, East African countries have weak legal enforcement mechanisms this is confirmed with the average estimates of -0.44 and -0.30 for the quality of regulations and the rule of law respectively. The standard deviation of the two indicators were 0.23 and 0.21 for quality of regulations and the rule of law respectively, this indicates a relatively smaller variation from the mean. The least indicator in terms of regulatory quality was -0.64 in Tanzania in 2019 while the highest was in Rwanda 0.24 in 2014. In relation to the rule of law, the least estimate was in Kenya -0.71 in 2013 and the highest estimate was in 0.12 in 2017 and 2018 in Rwanda. The coefficient of variation results indicate that there are no meaningful variations since the results were negative (-110% and -100%) for quality of regulations and the rule of

law respectively. This is attributed to the negative country scores for the two variables. The results of the legal enforcement is presented in the Table 4.10 below.

Table 4.10: Legal Enforcement Descriptive Statistics

	Mean	Max	Min	Range	Variance	Std Dev	COV	Skewness	Kurtosis
Regulatory Quality	-0.44	0.25	-0.66	0.90	0.025	0.23	-110%	0.87	4.17
Rule of Law	-0.30	0.12	-0.71	0.83	0.021	0.26	-100%	1.44	4.30

Source: Research Data, 2022

4.8 Qualitative Characteristics of Accounting Information

Accounting quality, the dependent variable, was assessed using three indicators: discretionary accruals; financial information's value relevance; and the financial information qualitative qualities. The qualitative characteristics was assessed using Beest et al. (2009) questionnaire that evaluated 21 questions relating to timeliness, understandability, comparability, relevance and faithful representation. Research data was obtained through both primary and secondary sources, and the value obtained by averaging the data from the two sources was used to test the study's hypothesis. The summaries of the above data are discussed below.

4.8.1 Timeliness

The calendar days from the financial year-end to the day when the audited financial statements are signed off by the company's auditors was used to assess the timeliness of financial information. It was established that the on average listed firms took 92 days to release their audited accounts after the financial year-end. The data, on the other hand,

revealed a large range of 226 days, which corresponded to the gap seen between minimum of 26 days and the highest of 252 days. The coefficient of variation indicated low levels of variability from the average of 32%. The summary of timeliness findings is presented in Table 4.11 below

Table 4.11: Summarized Data on Timeliness

	No. of days
Mean	92.34
Median	88.00
Mode	90.00
Max	252.00
Min	26.00
Range	226.00
Std Dev	29.76
CV	32%

Source: Research Data, 2022

4.8.2 Comparability

Comparability to those of other companies and over time for same firm is among the qualitative aspects of accounting reports. Five questions were used to assess this: C1 assessed the capacity of financial statement notes to explain changes in the accounting policies, whereas C2 assessed the notes' ability to explain revisions and judgement of the implications of revisions in accounting policies, C3 analyzed the effect of any adjustments to prior period figures and explanation of such effects, C4 analyzed whether the company provided a comparison with prior year figures, C5 evaluated whether the company provided comparable information to other organizations and C6 analyzed whether the annual report included index numbers. The scores were ranked between 1 being the least score and 5 being the maximum score.

The study's results revealed that on average the explanations of prior year adjustments and their implications had the least score of 1.52 while the highest average score was on comparability of the annual report of a firm with other organizations having a 3.44 score, the coefficient of variation indicates the least variability in C1 and C5 with 10% while the highest variability was on C3 with 70%. These comparability findings is summarized in Table 4.12 below.

Table 4.12: Summarized Data on Comparability of Accounting information

	C1	C2	C3	C4	C5	C6
Mean	3.05	2.90	1.52	2.87	3.44	2.56
Median	3.00	3.00	1.00	3.00	3.00	2.00
Mode	3.00	3.00	1.00	3.00	3.00	2.00
Max	5.00	5.00	5.00	5.00	4.00	5.00
Min	2.00	1.00	1.00	2.00	2.00	1.00
Range	3.00	4.00	4.00	3.00	2.00	4.00
Std Dev	0.30	0.44	1.06	0.68	0.51	0.93
CV	10%	20%	70%	20%	10%	40%

Source: Research Data, 2022

4.8.3 Relevance

Accounting's conceptual framework accounting information's relevance has been highlighted as one of the attributes that financial reporting must possess, it has to do with fit for purpose (IASB, 2010). The study evaluated relevance using four questions: R1 which evaluated the presence of forward-looking information useful for predictions and forming expectations, R2 which tested the use of non-financial information relating to risks and opportunities that complement the financial information, R3 which tested the extent of use of fair values instead of historical values, R4 evaluated the level by which the performance

reported provide feedback on the market events to the users. The scores were ranked between 1 being the least score and 5 being the maximum score.

The findings reveal that on average the presence of forward-looking information useful for developing expectations and predictions of the company future had the least score of 2.93 while presence of feedback on market events had the highest score of 3.45. The maximum scores were 4 for all the four questions while the minimum score was 1 for R1 while R2, R3 and R4 each had a minimum score of 2 out of 5. The coefficient of variation indicates the least variability in R1 with 14% while the highest variability was on R3 with 19% this reveals small variability of the data on relevance from the mean. The Table 4.13 below summarizes the above findings.

Table 4.13: Summarized Data on Relevance of Accounting Information

	R1	R2	R3	R4
Mean	2.93	3.39	3.03	3.45
Median	3.00	3.00	3.00	3.00
Mode	3.00	3.00	3.00	3.00
Max	4.00	4.00	4.00	4.00
Min	1.00	2.00	2.00	2.00
Range	3.00	2.00	2.00	2.00
Std Dev	0.42	0.49	0.58	0.54
CV	14%	15%	19%	16%

Source: Research Data, 2022

4.8.4 Faithful Representation

As per the IASB conceptual framework accounting information should be faithfully represented a qualitative attribute of financial information that the study sought to analyze. This was assessed using five questions: F1 which evaluated the extent to which valid arguments were availed in support of the accounting estimates and assumptions in the

financial report, F2 evaluated the extent by which a firm bases the choice of accounting policies on cogent arguments, F3 analyzed the level of analysis of positive as well as negative are discussed in the annual reports, F4 evaluated the type opinion given by the auditor on the financial report and F5 evaluated the extent by which the company provided corporate governance information. The scores were ranked between 1 being the least score and 5 being the maximum score.

The findings revealed that F3 had on average the least score of 2.77 while the highest score was F4 with 3.97. The maximum scores were 5 for F1, F4 and F5 questions while F2 and F3 maximum scores were 4. The minimum score was 0 for F4, 1 for F3 and F5 while F1 had a least score of 2 and F2 had a minimum score of 3 out of 5. The coefficient of variation indicates the least variability in F1 with 8% while the highest variability was on F3 with 26% this reveals generally a small variability of the faithful representation data from the mean. These findings are highlighted in Table 4.14.

Table 4.14: Summarized Data on Faithful Representation of Accounting information

	F1	F2	F3	F4	F5
Mean	3.02	3.08	2.77	3.97	3.68
Median	3.00	3.00	3.00	4.00	4.00
Mode	3.00	3.00	3.00	4.00	4.00
Max	5.00	4.00	4.00	5.00	5.00
Min	2.00	3.00	1.00	0.00	1.00
Range	3.00	1.00	3.00	5.00	4.00
Std Dev	0.23	0.28	0.71	0.29	0.55
CV	8%	9%	26%	7%	15%

Source: Research Data, 2022

4.8.5 Understandability

The ability of the financial reporting to be easily understood by its users is one of the qualitative qualities of financial information. This was assessed using five questions: U1 which analyzed if the annual report was presented in a logical and orderly manner, U2 evaluated the sufficiency of the financial statements notes, U3 evaluated the extent of use of tables and graphs in clarifying the information reported, U4 analyzed whether the language and technical terms used were easy to understand, U5 evaluated the size of the annual report glossary. The scores were ranked between 1 being the least score and 5 being the maximum score.

The results of the indicate that the average scores were 3.33, 3.22, 2.92, 3.33 and 1.02 for U1, U2, U3, U4 and U5 respectively. The maximum scores were 5 for U3, 4 for U1, U2 and U4 while U5 had a maximum score of 2. The minimum scores were 1 for U2, U3, and U5 while both U1 and U4 had minimum scores of 2. The coefficient of variation indicates the least variability in U5 with 13% while the highest variability was on U3 with 45%, U1, U2 and U4 had coefficient of variation of 14% each. The data generally reveals small variability of the data on relevance from the mean. These results are highlighted in the Table 4.15 below.

Table 4.15: Summarized Data on Understandability of Accounting information

	U1	U2	U3	U4	U5
Mean	3.33	3.22	2.92	3.33	1.02
Median	3.00	3.00	3.00	3.00	1.00
Mode	3.00	3.00	3.00	3.00	1.00
Max	4.00	4.00	5.00	4.00	2.00
Min	2.00	1.00	1.00	2.00	1.00
Range	2.00	3.00	4.00	2.00	1.00
Std Dev	0.48	0.45	1.33	0.48	0.14
CV	14%	14%	45%	14%	13%

Source: Research Data, 2022

4.9 Robustness Tests

Regression models are normally based on a number of assumptions which may affect the results and applicability of the regression models. The regression assumptions include linearity between the independent and the dependent variables, independence, no collinearity among the variables, no auto-correlation, normality and homoscedasticity. Diagnostic tests to test the above assumptions of linear regression were performed and findings discussed in the section below.

4.9.1 Test for Normality

Linear regression models assumed that data used is distributed normally. The study used Kolmogorov-Smirnov, a non-parametric goodness of fit test to assess the equality of a continuous distribution that compares one or more samples with a reference probability distribution. Further, a more robust Shapiro-Wilk (1965) test was also utilized to perform normality tests for the distribution. The test was performed at a level of significance of 5%

and the findings presented in Table 4.16 below confirm normality in the distribution (sig < 0.05) for all the variables studied.

Table 4.16: Test of Normality Results

Normality tests						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
FUNC	0.117	424	0.000	0.959	424	0.000
GEOG	0.227	424	0.000	0.831	424	0.000
GEN	0.107	424	0.000	0.926	424	0.000
EDUC	0.138	424	0.000	0.902	424	0.000
AGE	0.102	424	0.000	0.964	424	0.000
TEN	0.094	424	0.000	0.953	424	0.000
BDIV	0.053	424	0.006	0.987	424	0.001
RLAW	0.245	424	0.000	0.800	424	0.000
RQUAL	0.227	424	0.000	0.809	424	0.000
IFRS	0.047	424	0.028	0.977	424	0.000
QXSTCS	0.051	424	0.010	0.990	424	0.006
DISCACC	0.487	424	0.000	0.099	424	0.000
VREL	0.252	424	0.000	0.784	424	0.000

a. Lilliefors Significance Correction

Source: Research Data, 2022

4.9.2 Heteroscedasticity Test

Ordinary least squares (OLS) assumption provides that the residuals need to have uniform variance, that is, the residuals should be homoscedastic. Levene test of homogeneity was used in the study to test for uniformity of variances of the study's variables. Levine test evaluates the null hypothesis that the data were not of equal variances and was tested at 5% level of significance, if significance level is above 5% the null hypothesis is rejected and it can be concluded that the data is homoscedastic, else it indicates evidence of

heteroscedasticity. From the study's results, independent variable of board attributes was of equal variances except age. Therefore, the composite index of the board diversity was found to be homoscedastic. The findings are indicated in Table 4.17 below.

Table 4.17: Levene's Test of Equality of Error Variances

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
FUNC	2.143	79	246	0.000
GEOG	2.987	79	246	0.000
GEN	1.714	79	246	0.001
EDUC	1.895	79	245	0.000
AGE	1.427	79	244	0.021
TEN	1.929	79	245	0.000
BDIV	1.391	79	246	0.030
RLAW	3.837	79	246	0.000
RQUAL	4.397	79	246	0.000
IFRS	1.775	79	246	0.000

Source: Research Data, 2022

4.9.3 Multicollinearity Test

Multicollinearity arises due to high correlation between the predictor variables that make it challenging to assess the impact of the predictor variables on the variations in the dependent variable (William, Grajeles and Karkiewicz, 2013). The existence of correlations among the variables results to inability to obtain useful regression results (Field, 2009). Multicollinearity has the effect of distorting the confidence levels and the standard errors leading to instability of the estimate of the coefficients for the predictor variables (Besley, Edwin and Roy, 1980). VIF was used to test for multicollinearity, the VIF results are all between 1 and 10, therefore indicate that the levels of collinearity are tolerable and has the

least effect on the regression model (Robinson, and Schumacker,2009). A summary of the findings is presented in Table 4.18 below.

Table 4.18: Multi-collinearity Results

Model		Collinearity Statistics	
		Tolerance	VIF
	FUNC	0.872	1.147
	GEOG	0.830	1.205
	GEN	0.846	1.182
	EDUC	0.869	1.151
	AGE	0.880	1.137
	TEN	0.915	1.093
	RLAW	0.452	2.213
	RQUAL	0.461	2.167
	IFRS	0.853	1.173

a. Dependent Variable: DISCACC

Source: Research Data, 2022

4.9.4 Test of Independence

Regression models also assume independence of the error terms, meaning that the observations a study are expected to be independent. The study applied Durbin-Watson test to test for independence of the study's observations. The Durbin-Watson results is expected to be values between 0 to 4, a score that ranged between 1.5 and 2.5 indicates independence of the observations. The test results are summarized in the Table 4.19 below. The low R square values less influence associated with the single variables on the accounting quality. East African firms generally reported low levels of diversity in boards and legal enforcement. The findings of the test indicate independence of the variables since all the variables had Durbin-Watson values ranging from 1.5 and 2.5.

Table 4.19: Independence Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
FUNC	.093 ^a	.009	.006	.196844478	2.267
GEORG	.037 ^a	.001	-.002	.197575541	2.261
GEN	.030 ^a	.001	-.002	.197619187	2.257
EDU	.125 ^a	.016	.012	.196164284	2.295
AGE	.010 ^a	.000	-.003	.197699400	2.259
TENURE	.011 ^a	.000	-.003	.197697291	2.260
BDIV	.113 ^a	.013	.010	.196437752	2.276
IFRS	.049 ^a	.002	-.001	.197472302	2.257
RQUAL	.084 ^a	.007	.004	.197007672	2.261
RLAW	.014 ^a	.000	-.003	.197689777	2.263
VREL	.073 ^a	.005	.002	.197184118	2.265
QXRISTICS	.102 ^a	.010	.007	.196672942	2.254

Source: Research Data, 2022

The study's results revealed that the Durbin-Watson score for the study's variables is within the range 1.5 and 2.5 therefore, we can conclude that the study's observations were independent of each other therefore the independence assumption was met for the current study as supported by the Durbin-Watson test scores.

4.9.5 Panel Data Unit Root Tests

The study's data was panel data covering eight years (2013 – 2020) for listed firms in East Africa. Panel data may not be stationary due to the year-to-year effect, this creates the need to test for stationarity. This was necessary in order to avoid having spurious regression results from the use of non-stationary data series. The study's data indicate variations from one year to another for the period of the study creating the need to evaluate for the presence of unit roots in the data collected for the research. The study applied the Augmented Dickey-Fuller (ADF) to perform the unit root tests so as to evaluate stationarity of the study's variables including board diversity attributes, IFRS adopting, legal enforcement and

accounting quality and their corresponding indicators. The above results of the unit root testing is highlighted in Table 4.20 below.

Table 4.20: Unit Root Test Results

Variable	1% level	5% level	10% level	ADF statistic	Prob	Comment
BDIV	-3.4509	-2.8705	-2.5716	-7.5124	0.0000	Stationary
RLAW	-3.4513	-2.8707	-2.5717	-1.2553	0.6510	Non-stationary
RLAW*	-3.4513	-2.8707	-2.5717	-6.0949	0.0000	Stationary
RQUAL	-3.4518	-2.8709	-2.5718	-3.7852	0.0034	Stationary
IFRS	-3.4512	-2.8706	-2.5717	-3.2800	0.0167	Stationary
DISCACC	-3.4508	-2.8704	-2.5716	-20.1730	0.0000	Stationary
QXSTCS	-3.4509	-2.8705	-2.5716	-7.5160	0.0000	Stationary
GEOG	-3.4509	-2.8705	-2.5716	-6.1431	0.0000	Stationary
TEN	-3.4509	-2.8705	-2.5716	-9.1786	0.0000	Stationary
GEN	-3.4509	-2.8705	-2.5716	-8.0251	0.0000	Stationary
FUNC	-3.4509	-2.8705	-2.5716	-7.5218	0.0000	Stationary
EDUC	-3.4509	-2.8705	-2.5716	-5.9190	0.0000	Stationary
AGE	-3.4509	-2.8705	-2.5716	-7.8542	0.0000	Stationary

*First difference testing

Source: Research Data, 2022

The findings of the ADF are founded on the null hypothesis that the variables have unit roots. A variable is stationary if the results at 5% level of significance is higher than the ADF statistic and the prob is less than 0.05. From the above table, all the study's variables except RLAW were stationary at level. First differencing was performed to make the data stationary and RLAW was tested again and was found stationary. Therefore, from the above, we can conclude that the data was stationary.

4.9.6 Test for Outliers

A point that highly deviates from the other data points in a study is referred to as an outlier. It significantly affects the results of a study consequently, the outlier if identified must be treated prior to deriving conclusions from a regression analysis. The study utilized Cook's distance in identification of outliers, it gives the difference between the regression coefficients from the overall data and also the coefficients of the regression from the sample after removal of any identified cases from the process of estimation. Generally, a Cook's distance value higher than 1 shows possible outlier. The results of the Cook's distance analysis the maximum value was 0.363 while minimum value is 0.000 with a mean of 0.003. This revealed that the study had no outliers. The outlier tests result is highlighted in the Table 4.21 below.

Table 4.21: Cook's Distance Statistics Results

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Cook's Distance	0.000	0.363	0.003	0.024	424

a. Dependent Variable: DISCACC

Source: Research Data, 2022

4.10 Correlation of Study Variables

The nature of strength of a linear relation between multiple variables is assessed via correlation analysis. Pearson's correlation coefficient (r) was utilized to evaluate for correlations between the study's variables, it ranges from a value of -1 to +1. According to Cooper and Schindler (2008) an r value of -1 indicate a perfect strong negative correlation between the study variables which means an increase in one variable results to a

corresponding decrease on the other. An r value of 0 indicates lack of existence of association among the variables. A r value of +1 indicates a perfect strong positive correlation such that when one variable increases it results in an increase on the other variable. The correlations were tested for significance at 0.01 and 0.05, the findings are presented in the Table 4.22 below.

Table 4.22: Board Attributes Correlation Analysis

Correlations							
		FUNC	GEOG	GEN	EDUC	AGE	TEN
FUNC	Pearson Correlation	1	0.002	.193**	-.193**	.153**	-0.082
	Sig. (2-tailed)		0.969	0.000	0.000	0.003	0.116
GEOG	Pearson Correlation	0.002	1	-.203**	.177**	-0.025	0.046
	Sig. (2-tailed)	0.969		0.000	0.001	0.632	0.382
GEN	Pearson Correlation	.193**	-.203**	1	-.274**	-0.070	.146**
	Sig. (2-tailed)	0.000	0.000		0.000	0.176	0.005
EDUC	Pearson Correlation	-.193**	.177**	-.274**	1	0.046	0.015
	Sig. (2-tailed)	0.000	0.001	0.000		0.374	0.778
AGE	Pearson Correlation	.153**	-0.025	-0.070	0.046	1	.223**
	Sig. (2-tailed)	0.003	0.632	0.176	0.374		0.000
TEN	Pearson Correlation	-0.082	0.046	.146**	0.015	.223**	1
	Sig. (2-tailed)	0.116	0.382	0.005	0.778	0.000	

Source: Research Data, 2022

From the results above significant positive correlations at 0.05 were observed between gender and functional background ($r = 0.193$, $\text{sig} = 0.000$); gender and geography ($r = -.203$, $\text{sig} = 0.000$); education and functional background ($r = -0.193$, $\text{sig} = 0.000$); education and geographical background ($r = 0.177$, $\text{sig} = 0.001$); education and gender ($r = -0.274$, $\text{sig} = 0.000$); age and functional background ($r = 0.153$, $\text{sig} = 0.003$); tenure and gender ($r = 0.146$, $\text{sig} = 0.005$); tenure and age ($r = 0.223$, $\text{sig} = 0.000$). Significant negative correlations were observed between gender and geography ($r = -0.272$, $\text{sig} = 0.000$);

education and functional background ($r = -0.191$, $\text{sig} = 0.000$); education and gender ($r = -0.217$, $\text{sig} = 0.000$). At 0.05 significance level tenure and gender had a significant positive association ($r = 0.117$, $\text{sig} = 0.038$). Generally, low levels of r is attributable to low levels of diversity in boards of directors among the East African listed companies. The rest of the correlations were not significant at both 0.01 and 0.05 levels of significance.

4.11 Chapter Summary

The data on the variables studied: independent; intervening; moderating, and the dependent variable were presented in this fourth chapter. Specifically, data was then analyzed as per the research objectives and the findings presented as above.

The main objective was to assess the association between board diversity, IIFRS adoption legal enforcement and financial quality of quoted companies in the EAC securities' exchanges. The results of the data analysis were summarized using descriptive statistics. So as to ensure that the research data fits the models of the study data was normalized and where appropriate natural logarithms was used so as to standardize the data.

Board diversity was analyzed in perspective of age, tenure, functional backgrounds, geographical background, gender and the level of education of the directors. The diversity of boards was measured using blau index which ranged from 0 to 1 where 0 shows no diversity and 1 indicates diversity. The results indicate that the highest diversity was director tenure with an index of 0.7177 followed by functional diversity whose average index was 0.6825 and educational diversity index of 0.5711. Low levels of diversity were observed in geographical background (0.2630), gender (0.2842) and age (0.1740). The least

diverse of the attributes was age meaning that the directors in East African firms were relatively of the same age brackets, this is confirmed by the grand mean age of 54.6 years.

Three indices of discretionary accruals, value relevance, and qualitative qualities of reported financial information were used to assess the quality of accounting data. Generally, East African firms exhibit low levels of earnings management (mean = 0.0062) which indicates high quality reporting by the firms. Value relevance had a mean of 3.28 and a variance of 8.28 which indicates varying levels of value relevance across firms in East Africa. Qualitative characteristics of accounting information had a mean result of 0.5772 revealing fair quality accounting information by listed firms.

Adoption of International Financial Reporting Standards (IFRS) was the study's intervening variable. Data was collected based on the IFRS Disclosure checklist focusing on the relevant standards to respective firms. The data generally indicates high levels of compliance to IFRS by quoted companies in the East African Securities' Exchanges. This is evidenced by the overall mean of 76% and the highest score of 91%. Legal enforcement was the moderating variable in the study and the research data indicates generally weak enforcement mechanisms for East African Nations as was measured by the WGI indicators of regulatory quality (mean=-0.2055) and the rule of law (mean = -0.2587) indices. The highest enforcement levels were reported in Rwanda and the least indices reported in Kenya.

Research data was then assessed on the regression model assumptions of independence, normality, homogeneity, outliers and collinearity. The study's research data met all

assumptions of the regression model, according to the findings of the assumption tests. Research data being panel data was tested for existence of unit roots using the ADF test with results indicating no presence of unit roots since all the data was found to be stationary. The data was then utilized to assess the research hypothesis, this is described in the subsequent chapter of the study.

CHAPTER FIVE

HYPOTHESIS TESTING AND DISCUSSION OF FINDINGS

5.1 Introduction

This section is developed from chapters three and four and it details the results on data presentation and results. The analysis was founded on both theoretical and empirical studies so as to answer the four objectives of the current study. The first part focuses on the test of hypothesis through least squares regression, stepwise regression and correlation were utilized to test the hypothesis. The above tests were conducted at 5% level of statistical significance. Research hypothesis was developed from the objectives of the study. The second part of the chapter highlights a discussion of the research findings.

5.2 Board Diversity Effect on Accounting Quality

This study's first objective was formulated so as to assess the impact of diversity in boards on the accounting quality for quoted firms in East African Community securities exchanges. It is from this objective that the first hypothesis was developed, diversity of boards had no significant impact on the accounting quality for firms that listed within the East African Community securities exchanges. This was informed from both the literature reviewed and the theoretical contribution of Hambrick and Manson (1984) which linked firm outcomes and the demographic diversity of the company's senior management team in relation to: education; age; functional background; tenure and gender. The first hypothesis of the study of the study was as follows:

H₀₁: Board diversity does not significantly influence the quality of accounting information for quoted companies in the East African Community

The accounting quality was assessed using three indicators of earnings management as measured by: value relevance; discretionary accruals and the qualitative characteristics of accounting information. The sub-hypothesis of the study's hypothesis one highlighted below are discussed in the section that follows.

H_{01a}: Board diversity do not significantly influence management of earnings of quoted companies in the East African Community

H_{01b}: Board diversity do not significantly influence the value relevance of quoted companies in the East African Community

H_{01c}: Board diversity do not significantly influence the fundamental qualitative characteristics of listed companies in the East African Community

5.2.1 Effect of Board Diversity on Earnings Management

The study's first sub-hypothesis of hypothesis one was examined through use of multiple linear regression where the board diversity indicators of director age, director tenure, gender, education, functional background and geographical diversity were averaged to obtain a composite index which was regressed against the management of earnings which was assessed by use of the discretionary accruals of the quoted companies on the securities exchanges of East African Community nations. The findings of the linear regression tests are depicted in Table 5.1 below.

Table 5.1: Regression Results of Board Diversity on Earnings Management

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.183 ^a	0.033	0.031	15.0972462	0.033	14.581	1	422	0.000	
ANOVA ^a										
Model		Sum of Squares	Df	Mean Square	F	Sig.				
1	Regression	3323.372	1	3323.372	14.581	.000 ^b				
	Residual	96185.128	422	227.927						
	Total	99508.500	423							
Coefficients ^a										
		Unstandardized Coefficients		Standardized Coefficients				95.0% Confidence Interval for B		
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound			
1	(Constant)	-22.774	5.550		-4.103	0.000	-33.683	-11.865		
	BDIV	46.650	12.217	0.183	3.818	0.000	22.637	70.664		

a. Predictors: (Constant), BDIV

b. Dependent Variable: DISCACC

Source: Research Data, 2022

The regression of the board diversity index of diversity and management earnings as assessed by use of discretionary accruals results to a significant and positive association between diversity in boards and accounting quality as measured by discretionary accruals (Coefficient = 0.183, F-value = 14.581, Sig = 0.000 which is lower than $\alpha = 0.05$). The model however only explains 3.3% of the variations in accounting quality as measured by discretionary accruals ($R^2 = 0.033$) implying low explanatory power of the model in explaining the relationship between board diversity and discretionary accruals. The coefficient (unstandardized = 46.650, sig = 0.000) indicates that a change by one unit of a board's diversity results to increase of the discretionary accruals by 46.650 units. Therefore, a positively significant association exists between board diversity and management of earnings. Consequently, the hypothesis that board diversity does not significantly influence financial information quality as measured by management of earnings is not confirmed. The equation can be rewritten as follows:

$$\text{Disc Acc} = -22.774 + 46.650\text{BDIV}$$

5.2.2 Effect of Board Diversity on Value Relevance

The study's second sub-hypothesis of hypothesis one was examined using linear regression analysis where the board diversity indicators of director age, director tenure, gender, education, functional background and geographical diversity were averaged to obtain a composite board diversity index then regressed against the sensitivity of the share prices of quoted companies on East Africa Community securities exchanges. The findings of the linear regression test are highlighted in the table 5.2 below. A discussion of the model results follows after the table.

Table 5.2: Regression Results of Joint Board Diversity Indicators on Value Relevance

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.178 ^a	0.032	0.029	8.0081121	0.032	13.796	1	422	0.000
ANOVA ^a									
Model		Sum of Squares	Df	Mean Square	F	Sig.			
1	Regression	884.750	1	884.750	13.796	.000 ^b			
	Residual	27062.801	422	64.130					
	Total	27947.550	423						
Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	-6.941	2.944		-2.358	0.019	-12.728	-1.155	
	BDIV	24.070	6.480	0.178	3.714	0.000	11.332	36.807	

a. Predictors: (Constant), BDIV

b. Dependent Variable: VREL

Source: Research Data, 2022

The board diversity and financial information impact on share prices regression, resulted to a significant model that explained the association between board diversity and financial information quality as examined by value relevance (F-value = 13.795, Sig = 0.000 which is less than $\alpha = 0.05$). The board diversity index explains 3.2% of the variations in financial information quality as indicated by value relevance of accounting information ($R^2 = 0.032$). The coefficient (unstandardized = 24.070, Sig = 0.00) indicates that a change by a single unit of diversity of boards results to a change in value relevance by 24.070 units. From the above, the hypothesis that board diversity do not significantly influence quality of financial information for quoted companies on the East African Community securities exchange, as was assessed using value relevance of financial information, was not confirmed. It can therefore be concluded that the board diversity significantly affects the quality of accounting as measured by value relevance of financial information. The regression equation can be rewritten as follows:

$$V_{rel} = -6.941 + 24.070 \text{ BDIV}$$

5.2.3 Board Diversity Effect on Qualitative Characteristics

The third sub-hypothesis of hypothesis one was analyzed by use of the linear regression analysis where the board diversity indicators of director age, director tenure, gender, education, functional background and geographical diversity were averaged to get a composite board diversity index then regressed against the fundamental qualitative characteristics of the listed firms in the East African Community securities exchanges. The output of the linear regression is highlighted in the table 5.3 below. A discussion of the model's results follows thereafter.

Table 5.3: Regression Results of Board Diversity on Qualitative Characteristics

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.100 ^a	0.010	0.008	0.0515077	0.010	4.290	1	422	0.039
ANOVA ^a									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	0.011	1	0.011	4.290	.039 ^b			
	Residual	1.120	422	0.003					
	Total	1.131	423						
Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	0.581	0.019		30.668	0.000	0.543	0.618	
	BDIV	0.086	0.042	0.100	2.071	0.039	0.004	0.168	

a. Predictors: (Constant), BDIV

b. Dependent Variable: QXSTC

Source: Research Data, 2022

The regression output indicates the model significantly explains the relation between the diversity of boards and quality of financial information as indicated by the qualitative characteristics ($F=4.290$, $\text{sig} = 0.039$, which is less than $\alpha = 0.05$). The model however, only explains 1% of the variations in qualitative characteristics of financial information attributable to board diversity ($R \text{ square} = 0.010$), meaning that 99% of qualitative characteristics variations are not explained through the regression model adopted. The unstandardized coefficient of board diversity indicates a change in a single unit of board diversity results to a change of 0.0086 units of the qualitative aspects of financial

information ($B=0.086$, $\text{sig} = 0.039$). From the foregoing, the hypothesis that the relationship between board diversity do not significantly influence the fundamental qualitative characteristics of listed companies in the East African Community is therefore not confirmed.

$$\text{Qualitative Characteristics} = 0.581 + 0.086 \text{ BDIV}$$

5.3 The Effect of Board Diversity and IFRS adoption on Accounting Quality

The study's second objective was to establish the influence of international financial reporting standards on the association between diversity of boards and accounting quality. From this objective, the second research hypothesis was developed as follows:

H₀₂: The adoption of IFRS do not significantly mediate the association between diversity of board and Accounting Quality of companies quoted in East Africa Community

The current study sought to analyze the intervening role of the international financial reporting standards (IFRS) on the association between board diversity and accounting quality of listed companies at the East Africa Community Securities exchanges. This was done using stepwise regression analysis guided by the approach of Baron and Kenny (1986). For mediation effect to hold, the following conditions must be fulfilled: First, the independent variables should be significantly associated to the dependent variable without the mediating variable. Secondly, the independent variables should be significantly associated to the mediating variable. Thirdly, mediating variable need to significantly relate to the dependent variable. Lastly, while controlling for the mediating effect of the

intervening variable on the dependent variable, the independent variables effect on the dependent variable becomes significant with inclusion of the mediating variable.

In relation to the above conditions, earnings management, value relevance of accounting information and qualitative characteristics met the first condition required for mediation since the results of the regression model were significant. Therefore, discretionary accruals, value relevance and qualitative characteristics measures were tested for mediation as per the Baron and Kenny (1986) approach. The sub-hypothesis to be analyzed was as highlighted below:

H_{02a}: The adoption of IFRS does not significantly mediate the association between diversity of boards and management of companies listed in the East African Community securities exchanges

H_{02b}: The adoption of IFRS does not significantly mediate the association between diversity of boards and value relevance of companies listed in the East African Community securities exchanges

H_{02c}: The adoption of IFRS does not significantly intervene the association between diversity of boards and qualitative characteristics of accounting information of companies quoted in the East African Community securities exchanges

5.3.1 Board Diversity, IFRS Adoption and Discretionary Accruals

The first measure of accounting quality to be tested for mediation is the management of earnings as measured by discretionary accruals. The effect of adopting IFRS on the association between board diversity and accounting quality as measured by discretionary

accruals was tested using the approach provided by Baron and Kenny (1986). The test for intervening results is highlighted in Table 5.4 below.

Table 5.4: Regression Results of Board Diversity, IFRS adoption and Discretionary Accruals

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.000	.183 ^a	0.033	0.031	14.581
Constant	-22.774	5.55		-4.103	0.000				
BDIV	46.65	12.217	0.183	3.818	0.000				
Model 2 ^b					0.000	.208 ^b	0.043	0.041	19.007
Constant	0.900	0.027		33.655	0.000				
BDIV	-0.257	0.059	-0.208	-4.360	0.000				
Model 3 ^c					0.581	.027 ^a	0.001	-0.002	0.306
Constant	2.592	7.917		0.327	0.744				
IFRS	-5.555	10.044	-0.027	-0.553	0.581				
Model 4 ^d					0.001	.183 ^a	0.034	0.029	7.302
Constant	-24.915	10.664		-2.336	0.020				
IFRS	2.378	10.109	0.012	0.235	0.814				
BDIV	47.261	12.503	0.185	3.78	0.000				

a, c, d - Dependent Variable - Discretionary Accruals

b - Dependent Variable - IFRS adoption

Source: Research Data, 2022

From the analysis, the 1st, 2nd and 4th model were significant (sig = 0.000, 0.000 & 0.001 respectively) while the 3rd model was not significant (sig = 0.581). This means that the regression analysis did not meet the 3rd requirement of the Baron and Kenny (1986) mediation approach. Therefore, the hypothesis that the adoption of IFRS does not significantly mediate the association between diversity of boards and earnings management for companies quoted in the East African Community securities exchanges' is confirmed.

5.3.2 Board Diversity, IFRS Adoption and Value Relevance

The second measure of financial information quality to be tested for mediation was value relevance of financial information. The effect of adopting IFRS on the association between board diversity and accounting quality as measured by value relevance of financial information was tested using the approach of Baron and Kenny (1986) was utilized to test for mediation and the findings are highlighted in Table 5.5 below.

Table 5.5: Regression Results of Board Diversity, IFRS adoption and Value Relevance

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.000	.178 ^a	0.032	0.029	13.796
Constant	-6.941	2.944		-2.358	0.019				
BDIV	24.070	6.480	0.178	3.714	0.000				
Model 2 ^b					0.000	.208 ^b	0.043	0.041	19.007
Constant	0.900	0.027		33.655	0.000				
BDIV	-0.257	0.059	-0.208	-4.360	0.000				
Model 3 ^c					0.873	0.008	0.000	-0.002	0.026
Constant	4.565	4.197		1.088	0.277				
IFRS	-0.851	5.324	-0.008	-0.160	0.873				
Model 4 ^d					0.001	.0180 ^a	0.033	0.028	7.081
Constant	-9.942	5.654		-1.758	0.079				
IFRS	3.333	5.360	0.030	0.622	0.534				
BDIV	24.296	6.629	0.184	3.763	0.000				

a, c, d – Dependent Variable – Value Relevance

b - Dependent Variable – IFRS adoption

Source: Research Data, 2022

From the analysis, the 1st, 2nd and 4th model were significant (sig = 0.000, sig = 0.000 and sig = 0.001 respectively) while the 3rd model was not significant (sig = 0.873). This means that the regression analysis did not meet the 3rd requirement of the Baron and Kenny (1986) mediation approach. Therefore, the hypothesis that adopting of IFRS does not significantly mediate the relationship between diversity of boards and value relevance of financial information of companies quoted in the East African Community securities exchanges' is confirmed.

5.3.3 Board Diversity, IFRS Adoption and Qualitative Characteristics

The intervening variable (adoption of IFRS) effect on the association between diversity of boards and financial information quality as evaluated by the qualitative characteristics of financial information was analyzed by use of regression analysis as guided by the Baron and Kenny (1986) approach as has been discussed above. The composite index of board diversity was utilized in this regression and the findings are highlighted in Table 5.6 below.

Table 5.6: Regression Results of Board Diversity, IFRS adoption and Qualitative Characteristics

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.039	.100 ^a	0.010	0.008	4.290
Constant	0.581	0.019		30.668	0.000				
BDIV	0.086	0.042	0.100	2.071	0.039				
Model 2 ^b					0.000	.208 ^b	0.043	0.041	19.007
Constant	0.900	0.027		33.655	0.000				
BDIV	-0.257	0.059	-0.208	-4.360	0.000				
Model 3 ^c					0.000	0.437	0.191	0.189	99.416
Constant	0.381	0.024		15.867	0.000				
IFRS	0.304	0.03	0.437	9.971	0.000				
Model 4 ^d					0.000	.478 ^a	0.229	0.225	62.443
Constant	0.281	0.032		8.755	0.000				
IFRS	0.333	0.03	0.478	10.927	0.000				
BDIV	0.172	0.038	0.2	4.561	0.000				

a, c, d – Dependent Variable – Qualitative Characteristics

b - Dependent Variable – IFRS adoption

Source: Research Data, 2022

From the analysis, the 1st, 2nd, 3rd and 4th models were all significant (sig = 0.000, sig=0.000, sig=0.000, and sig = 0.000 respectively). This means that the analysis met all the requirements for mediation as per the Baron and Kenny (1986) mediation approach. Therefore, that the hypothesis that adopting IFRS do not significantly mediate the association between diversity of boards and the qualitative characteristic of accounting for companies listed in East African Community is not confirmed.

5.4 Board Diversity and Legal Enforcement Effect on Accounting Quality

The empirical and theoretical literature reviewed indicates a strong influence on the quality of financial information reported. Literature reviewed in the current study points to the fact that a strong legal enforcement mechanism enhances the quality of accounting due to the possible disciplinary mechanism that the regulators enforce on firms and individuals in breach of the legal requirements. Studies on this have however not been conclusive since influence is dependent on whether a country is a common law or civil law. The legal mechanism in place also stipulates the appointment procedures for the company's board of directors. It is from this, that the study anticipated that the legal enforcement does not moderate the association between board diversity and quality of financial information for quoted companies in the East African securities exchanges.

Arising from the above, the study formulated the following hypothesis:

H₀₃: Legal Enforcement does not significantly moderate the association between diversity of boards and Accounting Quality of companies listed in East African Community

This hypothesis was further subdivided into the following three sub-hypotheses

H_{03a}: Legal Enforcement do not significantly moderate the association between board diversity and earnings management of quoted companies in East African Community

H_{03b}: Legal Enforcement do not significantly moderate the association between board diversity and value relevance of quoted companies in East African Community

H_{03c}: Legal Enforcement do not significantly moderate the association between diversity of boards and qualitative characteristics of quoted companies in East African Community

5.4.1 The Effect of Board Diversity and Legal Enforcement on Earnings Management

In order to test for moderation, an interaction term was formulated by multiplying each of the legal enforcement indicator of regulatory quality and rule of law were multiplied by the board diversity and then regressed as per the approach of Baron and Kenny (1986). Stepwise regression analysis was then applied in testing for moderation. The moderation results are presented in Table 5.7 below.

Table 5.7: Regression Results of Board Diversity, Regulatory Quality and Earnings Management

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.000 ^a	0.195 ^c	0.038	0.033	8.326
Constant	-19.429	6.019		-3.228	0.001				
BDIV	44.048	12.338	0.173	3.570	0.000				
RQUAL	7.324	5.134	0.069	1.427	0.154				
Model 2 ^b					0.000 ^b	0.227 ^c	0.051	0.045	7.599
Constant	10.616	13.695		0.775	0.439				
BDIV	-21.253	29.45	-0.083	-0.722	0.471				
RQUAL	97.763	37.43	0.92	2.612	0.009				
BDIVR*QUAL	-197.948	81.16	-0.86	-2.439	0.015				

a. Predictors: (Constant), BDIV, RQUAL

b. Predictors: (Constant), BDIVRQUAL, BDIV, RQUAL

c. Dependent Variable: DISCACC

Source: Research Findings, 2022

The results of model 1 above reveal a statistically significant model (sig = 0.000) such that board diversity and regulatory quality significantly predict management of earnings as measured by the discretionary accruals. The above is further confirmed by R² of 0.038 implying that the two variables only explain 3.8% of the variations in earnings management. In model 2 upon inclusion of the interaction term, model is still significant (sig = 0.000) with an R² of 0.051 meaning the board diversity, regulatory quality and the interaction term together explain 5.1% of the variations on discretionary accruals. Since the interaction term was significant, it implies that the regulatory quality moderates the

association between board diversity and accounting quality measured by earnings management. Therefore, the hypothesis that regulatory quality does not significantly moderate the association between diversity of boards and management of earnings is not confirmed.

The second measure of legal enforcement was the rule of law from the world governance indices, therefore, its moderating role needed to be tested as well. The regression analysis output results is presented in Table 5.7 below.

Table 5.7: Regression Results of Board Diversity, Rule of Law and Earnings Management

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.000 ^a	0.189 ^c	0.036	0.031	7.770
Constant	-25.523	6.218		-4.104	0.000				
BDIV	48.278	12.33	0.189	3.916	0.000				
RLAW	-4.557	4.648	-0.047	-0.98	0.328				
Model 2 ^b					0.000 ^b	0.216 ^c	0.047	0.040	6.880
Constant	-68.104	20.109		-3.387	0.001				
BDIV	139.093	42.611	0.545	3.264	0.001				
RLAW	-94.872	40.844	-0.986	-2.323	0.021				
BDIV*RLAW	193.344	86.874	0.964	2.226	0.027				

a. Predictors: (Constant), BDIV, RLAW

b. Predictors: (Constant), BDIVRLAW, BDIV, RLAW

c. Dependent Variable: DISCACC

Source: Research Findings, 2022

The results of the analysis indicate statistically significant models. Model 1 had a significance of 0.000 and R² of 0.036, F = 7.770, meaning that board diversity and the rule of law were significant predictors of earnings management. Further, the two variables only explained 3.6% of the variations in earnings management. Model 2 with the introduction of

the interaction term, model is still significant (sig = 0.000, $R^2 = 0.047$, $F = 6.880$). This indicates predictor-ability of the model, since it only explains 4.7% of the variations on discretionary accruals. The interaction term was equally significant (sig = 0.027). The results reveal that the rule of law moderates the association between diversity of boards and management of earnings. Therefore, the hypothesis that the rule of law does not significantly moderate the association between diversity of boards and management of earnings is not confirmed.

5.4.2 Board Diversity and Legal Enforcement Effect on Value Relevance

In order to test for moderation, an interaction term was formulated by multiplying each of the legal enforcement indicator of regulatory quality and rule of law were multiplied by the board diversity and then regressed with the second indicator of accounting quality (value relevance) as per the approach of Baron and Kenny (1986). Stepwise regression analysis was then applied in testing for moderation. The findings are summarized in Table 5.8 below.

Table 5.8: Regression results of Board diversity, Regulatory Quality & Value Relevance

Variables	β	SE	Std β	t	Sig	R	R^2	Adj R^2	F
Model 1 ^a					0.001 ^a	0.186 ^c	0.034	0.03	7.505
Constant	-5.573	3.196		-1.744	0.082				
BDIV	23.006	6.551	0.170	3.512	0.000				
RQUAL	2.995	2.726	0.053	1.099	0.272				
Model 2 ^b					0.001 ^b	0.195 ^c	0.038	0.031	5.536
Constant	-13.827	7.309		-1.892	0.059				
BDIV	40.496	15.717	0.303	2.605	0.010				
RQUAL	-21.850	19.976	-0.388	-1.094	0.275				
BDIVR*QUAL	54.381	43.315	0.446	1.255	0.210				

a. Predictors: (Constant), BDIV, RQUAL

b. Predictors: (Constant), BDIVRQUAL, BDIV, RQUAL

c. Dependent Variable: VREL
Source: Research Findings, 2022

The results of the analysis indicate insignificant models. Model 1 had a significance of 0.001 and R^2 of 0.034, $F = 7.505$, meaning that board diversity and the regulatory quality were significant predictors of value relevance of financial information and further, the two variables only explained 3.4% of the variations in value relevance. For model 2, with the introduction of interaction term, model remains significant ($\text{sig} = 0.001$, $R^2 = 0.038$, $F = 5.536$). This reveals that the regression model has low explanatory power of the research variables, further it only explains 3.8% of the variations on value relevance. The interaction term was not significant ($\text{sig} = 0.210$). The results reveal that the regulatory quality does not moderate the association between diversity of boards and value relevance. It can be concluded, that the hypothesis that regulatory quality does not significantly moderate the association between diversity of boards and value relevance is confirmed.

The second legal enforcement measure was the rule of law from the world governance indices, therefore, its moderating role effect on the association between diversity of boards and value relevance needs to be tested as well. The output of the regression models is summarized in Table 5.9 below.

Table 5.9: Regression Results of Board Diversity, Rule of Law and Value Relevance

Variables	β	SE	Std β	t	Sig	R	R^2	Adj R^2	F
Model 1 ^a					0.001 ^a	0.178 ^c	0.032	0.027	6.924
Constant	-7.366	3.302		-2.231	0.026				
BDIV	24.321	6.547	0.180	3.715	0.000				
RLAW	-0.704	2.468	-0.014	-0.285	0.775				
Model 2 ^b					0.003 ^b	0.180 ^c	0.032	0.025	4.683
Constant	-12.239	10.738		-1.140	0.255				
BDIV	34.714	22.753	0.257	1.526	0.128				
RLAW	-11.04	21.809	-0.216	-0.506	0.613				

BDIV*RLAW	22.125	46.388	0.208	0.477	0.634
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- a. Predictors: (Constant), BDIV, RLAW
- b. Predictors: (Constant), BDIV, RLAW, BDIV*RLAW
- c. Dependent Variable: VREL

Source: Research Findings, 2022

The results of the analysis indicate that model 1 had a significance of 0.001 and R^2 of 0.032, $F = 6.924$, meaning that board diversity and the rule of law were significant predictors of value relevance of accounting information although the two variables only explained 3.2% of the variations in value relevance. With the introduction of the interaction term in the second model, the significance of the model remains unchanged ($\text{sig} = 0.003$, $R^2 = 0.032$, $F = 4.683$). This reveals that the model is not a good predictor, further it only explains 3.2% of the variations on value relevance. The interaction term was also insignificant ($\text{sig} = 0.634$). The results reveal that the rule of law does not moderate the association between diversity of boards and value relevance. Therefore, the hypothesis that the rule of law does not significantly moderate the association between diversity of boards and value relevance is confirmed.

5.4.3 Board Diversity and Legal Enforcement Effect on Qualitative Characteristics

In order to test for moderation, an interaction term was formulated by multiplying each of the legal enforcement indicator of regulatory quality and rule of law were multiplied by the board diversity and then regressed with the second indicator of accounting quality (value relevance) as per the Baron and Kenny (1986) approach. Stepwise regression was then applied in testing for moderation. The results of the moderation effect of the regulatory quality are highlighted in Table 5.10 below.

**Table 5.10: Board Diversity, Regulatory Quality and Qualitative Characteristics
Regression Output**

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.099 ^a	0.104 ^c	0.011	0.006	2.320
Constant	0.576	0.021		27.991	0.000				
BDIV	0.090	0.042	0.105	2.135	0.033				
RQUAL	-0.010	0.018	-0.029	-0.598	0.550				
Model 2 ^b					0.004 ^b	0.178 ^c	0.032	0.025	4.558
Constant	0.45	0.047		9.654	0.000				
BDIV	0.363	0.100	0.422	3.617	0.000				
RQUAL	-0.388	0.128	-1.084	-3.045	0.002				
BDIVR*QUAL	0.827	0.276	1.066	2.991	0.003				

a. Predictors: (Constant), BDIV, RQUAL

b. Predictors: (Constant), BDIVRQUAL, BDIV, RQUAL

c. Dependent Variable: QXRISTICS

Source: Research Findings 2022

The results of the analysis indicate that model 1 was not significant of 0.099 and R² of 0.011, F = 2.320, meaning that board diversity and the regulatory quality were not significant predictors of the qualitative attributes of financial information further, the two variables only explained 1.1% of the variations in the qualitative attribute of financial information. In the second model with the introduction of the interaction term, the model becomes significant (sig = 0.004, R² = 0.032, F = 4.558). This revealed that the model has low explanatory power since it only explains 3.2% of the variations on the qualitative property of accounting information. The interaction term was also significant (sig = 0.003). The results reveal that the regulatory quality does not moderate the association between diversity of boards and the qualitative aspects of financial information. Therefore, the hypothesis that regulatory quality does not significantly moderate the association between diversity of boards and the qualitative characteristics of financial information is confirmed.

The second measure of legal enforcement was, rule of law, from the world governance indices, therefore, its moderating role effect on the association between diversity of boards and the qualitative characteristics of financial information needs to be tested as well. The findings from the regression output are presented in Table 5.11 below.

Table 5.11: Regression Results of Board Diversity, Rule of Law and Qualitative Characteristics

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1 ^a					0.000 ^a	0.254 ^c	0.065	0.060	14.545
Constant	0.627	0.021		30.362	0.000				
BDIV	0.059	0.041	0.069	1.441	0.150				
RLAW	0.076	0.015	0.236	4.956	0.000				
Model 2 ^b					0.000 ^b	0.255 ^c	0.065	0.058	9.698
Constant	0.61	0.067		9.087	0.000				
BDIV	0.095	0.142	0.11	0.664	0.507				
RLAW	0.041	0.136	0.127	0.302	0.763				
BDIV*RLAW	0.076	0.29	0.112	0.261	0.795				

a. Predictors: (Constant), BDIV, RLAW

b. Predictors: (Constant), BDIV*RLAW, BDIV, RLAW

c. Dependent Variable: QXRISTICS

Source: Research Findings 2022

The results of the analysis indicate that model 1 had a significance of 0.000 and R² of 0.065, F =14.545, meaning that board diversity and the rule of law were significant predictors of qualitative aspects of financial information and further, the study's two variables however only explained 6.5% of the variations in the qualitative aspects of financial information. For the second model once the interaction term is introduced, the model remains significant (sig = 0.000, R² = 0.058, F = 9.698). The model only explains 5.8% of the variations on the qualitative aspects of financial information. The interaction term was however not significant (0.076 sig = 0.795). The results reveal that the rule of law does not moderate the association between diversity of boards and the qualitative attributes

of financial information. Therefore, the hypothesis that the rule of law does not significantly moderate the association between diversity of boards and qualitative characteristics is confirmed.

5.5 The Joint Effect of Board Diversity, IFRS Adoption and Legal Enforcement on Accounting Quality

The study's fourth objective was to establish the joint effect of diversity in boards, IFRS adoption, legal enforcement and accounting quality of quoted companies in East African securities exchanges. This is informed by the literature reviewed and the theories underpinning the study from which it is expected that board diversity, IFRS adoption and legal enforcement jointly influence accounting quality. This resulted to the formulation of the fourth hypothesis of the study as follows:

H₀₄: IFRS adoption and Legal Enforcement jointly do not significantly affect the relationship between diversity of boards and Accounting Quality of firms listed in the East African Community

Using multiple regression analysis, a model presented below fitting all the study variables was developed to test the formulated hypothesis.

$$AQ_4 = \beta_0 + \beta_1 BDIV + \beta_2 IFRS + \beta_3 LENF + \varepsilon_4$$

For hypothesis tests, each of the measures of the diversity of boards, IFRS adoption and legal enforcement were regressed against each of the accounting quality measures of: value relevance; earnings management and qualitative characteristics. OLS analysis was utilized to test the above model. From the above, the fourth hypothesis was subdivided into three sub-hypotheses as follows:

H_{04a}: IFRS adoption and Legal Enforcement jointly do not significantly affect the relationship between diversity of boards and earnings management of companies listed in the East African Community

H_{04b}: IFRS adoption and Legal Enforcement jointly do not significantly affect the relationship between diversity of boards and value relevance of companies listed in the East African Community

H_{04c}: IFRS adoption and Legal Enforcement jointly do not significantly affect the relationship between diversity of boards and qualitative characteristics of companies listed in the East African Community

5.5.1 Joint Effect of Board Diversity, IFRS Adoption and Legal Enforcement on Earnings Management

This was the first sub-hypothesis of the fourth objective of the study which was further be split into two since legal enforcement was assessed using two indicators of the regulatory quality and the rule of law. The sub-hypothesis is listed as follows:

H_{04a (i)}: IFRS adoption and regulatory quality jointly do not significantly affect the relationship between diversity of boards and earnings management of companies listed in the East African Community

H_{04a (ii)}: IFRS adoption and the rule of law jointly do not significantly affect the relationship between diversity of boards and earnings management of companies listed in the East African Community

The first analysis was to test the joint influence of IFRS adoption and quality of regulation on the association between board diversity and earnings management. Linear regression was used for this analysis and the findings are summarized in Table 5.12 below

Table 5.12: Joint effect of Board Diversity, IFRS and Regulatory Quality on Earnings Management

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1					0.001 ^b	0.196 ^a	0.039	0.032	5.611
Constant	-23.449	10.692		-2.198	0.029				
BDIV	45.126	12.569	0.177	3.590	0.000				
IFRS	4.708	10.217	0.023	0.461	0.645				
RQUAL	7.693	5.201	0.072	11.479	0.140				

a. Dependent Variable: DISCACC

b. Predictors: (Constant), RQUAL, IFRS, BDIV

Source: Research Findings, 2022

The regression analysis indicates an insignificant regression model as indicated by the model output (sig = 0.001, R² = 0.39 F = 5.611). The level of significance is less than $\alpha = 0.05$ indicating that the model significantly predicts earnings management. The model however only explains 3.9% of the variations in earnings management, while 96.1% of the variations in earnings management are explained by other research variables not considered in the current model and the error term. The coefficient results indicate that the constant ($\beta = -23.449$, sig = 0.029), board diversity ($\beta=45.126$, sig = 0.000) were significant predictors of earnings management while the regulatory quality ($\beta = 7.693$, sig = 0.140) and IFRS adoption ($\beta = 4.708$, sig = 0.645) were not significant predictor of earnings management. The results therefore mean that the hypothesis that IFRS adoption and regulatory quality jointly do not significantly affect the association between diversity of boards and earnings

management of companies listed in the East African Community is not confirmed. The model can therefore be rewritten as follows:

$$\text{Disc Acc} = -23.449 + 45.126 \text{ BDIV}$$

The second analysis examined the joint effect of adopting IFRS and the rule of law on association between diversity of boards and management of earnings. Linear regression tests were utilized for this analysis and the findings are highlighted in Table 5.13 below

Table 5.13: Joint Effect of Board Diversity, IFRS and rule of law on Earnings Management

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1					0.002 ^b	0.189 ^a	0.036	0.029	5.189
Constant	-27.781	11.057		-2.513	0.012				
BDIV	48.925	12.618	0.192	3.877	0.000				
IFRS	2.499	10.111	0.012	0.247	0.805				
RLAW	-4.571	4.654	-0.047	-0.982	0.327				

a. Dependent Variable: DISCACC

b. Predictors: (Constant), RLAW, IFRS, BDIV

Source: Research Findings, 2022

The use of the rule of law measure yields a significant regression model as indicated by the model output (sig = 0.002, R² = 0.036, F = 5.189). The level of significance is less than $\alpha = 0.05$ indicating that the model significantly predicts earnings management. The model however only explains 3.6% of the variations in earnings management, while 96.4% of the variations in earnings management are explained through other variables that were not considered in the current model and the error term. The coefficient results indicate that constant ($\beta = -27.781$, sig = 0.012), board diversity ($\beta = 48.925$, sig = 0.000) were significant predictors of earnings management while IFRS adoption ($\beta = 2.499$, sig = 0.805) and the rule of law ($\beta = -4.571$, sig = 0.327) were not significant predictors of earnings management. The results mean, the hypothesis that, IFRS adoption and the rule of law

jointly do not significantly affect the association between diversity in boards and earnings management of companies in East Africa Community is confirmed. The model can be rewritten as follows:

$$\text{Disc Acc} = -27.781 + 48.925 \text{ BDIV}$$

5.5.2 Joint Effect of Board Diversity, IFRS Adoption and Legal Enforcement on Value Relevance

This was the second sub-hypothesis of the fourth objective of the study which was further be split into two since legal enforcement was assessed using two indicators: regulatory quality and rule of law. The hypothesis are listed as follows

H_{04a} (i): IFRS adoption and regulatory quality jointly do not significantly affect the relationship between diversity of boards and value relevance of companies listed in the East African Community

H_{04a} (ii): IFRS adoption and the rule of law jointly do not significantly affect the relationship between diversity of boards and value relevance of companies listed in the East African Community

The first analysis was to test the joint impact of IFRS adoption and quality of regulation on association between board diversity and earnings management, this was analyzed by use of linear regression model and the findings are highlighted in Table 5.14 below.

Table 5.14: Joint Effect of Board Diversity, IFRS and Regulatory Quality on Value Relevance

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1					0.002 ^b	0.189 ^a	0.036	0.029	5.213
Constant	-9.328	5.674		-1.644	0.101				
BDIV	24.000	6.67	0.177	3.598	0.000				
IFRS	4.344	5.422	0.040	0.801	0.424				
RQUAL	3.336	2.760	0.059	1.209	0.227				

- a. Dependent Variable: VREL
- b. Predictors: (Constant), RQUAL, IFRS, BDIV

Source: Research Findings, 2022

The regression analysis indicates a significant regression model as indicated by the model output (sig = 0.002, $R^2 = 0.036$, $F = 5.213$). The level of significance is less than $\alpha = 0.05$ which indicates significance of the model in predicting the value relevance of financial information. The model however only explains 3.6% of the variations in value relevance of accounting information, while 96.4% of the variations in the value relevance of accounting information is explained by other variables that were not considered in the model and the error term. The coefficient results indicate that board diversity ($\beta=24.000$, sig = 0.000) was a significant predictor of value relevance while the constant ($\beta = -9.328$, sig = 0.101) IFRS adoption ($\beta = 4.344$, sig = 0.424) and the regulatory quality ($\beta = 3.336$, sig = 0.227) were insignificant predictors of the value relevance of financial information. This results therefore mean that the hypothesis that adoption of IFRS and the regulatory quality jointly do not significantly affect the association between diversity of board and value relevance of companies listed in the East African Community is not confirmed. Consequently, the regression equation considering only the significant coefficients can be re-drawn as follows:

$$\text{VREL} = 24.000 \text{ BDIV}$$

The second analysis tested the joint impact of adopting IFRS and the rule of law on the association between diversity of boards and value relevance of financial reporting. Linear regression test was utilized in hypothesis test and findings are presented in Table 5.15 below

Table 5.15: Joint Effect of Board Diversity, IFRS and Rule of Law on Value Relevance

Variables	β	SE	Std β	T	Sig	R	R ²	Adj R ²	F
Model 1					0.003 ^b	0.181 ^a	0.033	0.026	4.739
Constant	-10.396	5.869		-1.771	0.077				
BDIV	25.189	6.697	0.186	3.761	0.000				
IFRS	3.352	5.366	0.031	0.625	0.533				
RLAW	-0.723	2.470	-0.014	-0.293	0.770				

a. Dependent Variable: VREL

b. Predictors: (Constant), RLAW, IFRS, BDIV

Source: Research Findings, 2022

The regression analysis indicates a significant regression model as indicated by the model output (sig = 0.003, R² = 0.033, F = 4.739). The level of significance is less than $\alpha = 0.05$ revealing the significance of the model predicting value relevance of financial information. The model however only explains 3.3% of the variations in value relevance, while 96.7% of the variations in value relevance of financial information is explained by other variables that were not considered in the current model and the error term. The coefficient results indicate that board diversity ($\beta=25.189$, sig = 0.000) was significant in prediction of value relevance of financial information while the constant ($\beta = -10.396$, sig = 0.077), IFRS adoption ($\beta = 3.352$, sig = 0.533) and the rule of law ($\beta = -0.723$, sig =0.770) were insignificant predictors of financial information's value relevance. The results therefore mean that the hypothesis that IFRS adoption and the rule of law jointly do not significantly affect the relationship between board diversity and value relevance of companies quoted in the East African Community is not confirmed. Consequently, the regression equation considering only the significant coefficients can be re-drawn as follows:

$$\text{VREL} = 25.189 \text{ BDIV}$$

5.5.3 Joint Effect of Board Diversity, IFRS adoption and Legal Enforcement on Qualitative Characteristics

This was the third sub-hypothesis of the fourth objective of the study which was further be split into two since legal enforcement was assessed using two indicators of the regulatory quality and the rule of law. The hypothesis is listed as follows

H_{04a} (i): IFRS adoption and regulatory quality jointly do not significantly affect the relationship between diversity of boards and qualitative characteristics of firms listed in the East African Community

H_{04a} (ii): IFRS adoption and the rule of law jointly do not significantly affect the relationship between diversity of boards and qualitative characteristics of firms listed in the East African Community

The first analysis was to test the joint impact of IFRS adoption and quality of regulation on the association between board diversity and qualitative characteristics. Hypothesis test was done using linear regression and the findings are presented in Table 5.16 below

Table 5.16: Effect of Board Diversity, IFRS Adoption and Regulatory Quality on Qualitative Characteristics

Variables	β	SE	Std β	T	Sig	R	R ²	Adj R ²	F
Model 1					0.000 ^b	0.480 ^a	0.231	0.225	41.979
Constant	0.284	0.032		8.811	0.000				
BDIV	0.167	0.038	0.194	4.414	0.000				
IFRS	0.338	0.031	0.485	10.954	0.000				
RQUAL	0.016	0.016	0.045	1.019	0.309				

a. Dependent Variable: QXSTCS

b. Predictors: (Constant), RQUAL, IFRS, BDIV

Source: Research Findings, 2022

The regression results indicate a significant regression model as indicated by the model output (sig = 0.000, $R^2 = 0.231$, $F = 41.979$). The level of significance is less than $\alpha = 0.05$ indicating that the model is significant in predicting the qualitative characteristics of accounting information. The model however only explains 23.1% of the variations in qualitative characteristics of accounting information, while 76.9% of the variations in qualitative characteristics are attributable to other variables that were not considered in the current model and the error term. The coefficient results indicate that the constant ($\beta = 0.284$, sig = 0.000), board diversity ($\beta=0.167$, sig = 0.000); IFRS adoption ($\beta = 0.338$, sig=0.000) were all significant predictors of the qualitative characteristics of accounting information, while regulatory quality ($\beta = 0.016$, sig = 0.309) was not a significant predictor. The results therefore mean that the hypothesis that IFRS adoption and the regulatory quality jointly do not significantly affect the association between diversity of boards and qualitative characteristics of firms listed in the East African Community is not confirmed. Consequently, the regression equation considering only the significant coefficients can be re-drawn as follows:

$$\text{QXRISTICS} = 0.284 + 0.167 \text{ BDIV} + 0.338 \text{ IFRS}$$

The second analysis was to test the joint impact of adoption of IFRS and the rule of law on relationship between board diversity and qualitative characteristics. The hypothesis tests was done using linear regression model and the findings are highlighted in Table 5.17 below

Table 5.17: Joint Effect of Board Diversity, IFRS and Rule of Law on Qualitative Characteristics

Variables	β	SE	Std β	t	Sig	R	R ²	Adj R ²	F
Model 1					0.000 ^b	0.530 ^a	0.281	0.276	54.642
Constant	0.328	0.032		10.187	0.000				
BDIV	0.145	0.037	0.168	3.935	0.000				
IFRS	0.331	0.029	0.475	11.233	0.000				
RLAW	0.075	0.014	0.23	5.508	0.000				

a. Dependent Variable: QXSTCS

b. Predictors: (Constant), RLAW, IFRS, BDIV

Source: Research Findings, 2022

The regression results indicate a significant regression model as indicated by the model output (sig = 0.000, R² = 0.281, F = 54.642). The level of significance is less than $\alpha = 0.05$ indicating that the model significantly predicts qualitative characteristics of accounting information. The current model however only explains 28.1% of the variations in qualitative characteristics of financial information. The coefficient test indicates that the constant ($\beta=0.328$, sig = 0.000), board diversity ($\beta=0.145$, sig = 0.008), IFRS adoption ($\beta = 0.331$, sig = 0.000) and rule of law ($\beta = 0.075$, sig = 0.000) were significant in predicting qualitative characteristics. The results therefore mean that the hypothesis that adoption of IFRS and the rule of law jointly do not significantly affect the association between diversity of boards and qualitative characteristics of companies listed in the East African Community is not confirmed. Consequently, the regression equation considering only the significant coefficients can be re-drawn as follows:

$$\text{QXRISTICS} = 0.328 + 0.145 \text{BDIV} + 0.331 \text{IFRS} + 0.075 \text{RLAW}$$

The summary of the research findings on each of the four-research hypothesis and the related sub-hypothesis that tested the relationship between board diversity, IFRS adoption,

legal enforcement and accounting quality is documented in the Table 5.18 in the section that follows below.

5.6 Discussion of Findings

The study's general objective was to determine the relationship between diversity of boards, IFRS adoption, legal enforcement and financial information quality of company's firms in the East African securities exchanges. The section highlights discussion of the study's results and the test of hypothesis. A summary of the findings will also be presented in this section.

5.6.1 Board diversity and Accounting Quality

The study's first objective was to assess the relationship between diversity of boards and accounting quality of listed firms in East African securities exchanges. The study hypothesized that diversity of boards do not significantly influence the quality of accounting for quoted companies in the East African Community. The study analyzed accounting quality using three indicators: earnings management, specifically discretionary accruals was applied, the value relevance of financial information which assesses price-sensitivity of financial information and qualitative characteristics of financial information.

As a consequence of the use of the three indicators of accounting quality highlighted above, the relationship between board diversity and accounting quality was separately analyzed for each of the three indicators of earnings management, value relevance and qualitative characteristics of financial information for quoted companies in East Africa. The section was therefore subdivided into the three indicators mentioned above.

5.6.1.1 Board Diversity and Earnings Management

The first sub-hypothesis of hypothesis one hypothesized that the board diversity does not significantly affect discretionary accruals. To evaluate the hypothesis, the individual attributes of age, gender, functional background, education level, tenure and geographical diversities were considered. So as to test the overall impact of diversity of boards, a composite index that combined all the diversity aspects mentioned above and also regressed against management of earnings. The output of the regression tests of board diversity and earnings management as measured by the discretionary accruals resulted in a statistically significant model. This indicates that a diverse board results to lower management of earnings for East Africa quoted firms.

The board diversity yielded a statistically significant model predicting earnings management for East African quoted companies, the results of the study is consistent to the findings of Srinidhi et al. (2011) establish that companies led by women directors are associated with better financial reporting discipline and therefore high-quality financial reports. Further, Kim and Yang (2014) reported that director tenure is negatively related to management of earnings. Wahid (2018) established a significant negative association of gender diversity in boards and manipulation of financial reporting therefore higher quality financial reporting. The current study's results are consistent to the findings by Omoro (2014) which reported significant impact diversity in boards on management of earnings in Kenya. This implies that board diversity significantly determines the management of earnings for EAC firms such that a more diverse reports lower cases of managing earnings.

5.6.1.2 Board Diversity and Value Relevance of Accounting Information

The second indicator of accounting quality was value relevance of accounting information. This formed the second sub-hypothesis of the first hypothesis of the study. The board diversity index yielded a statistically positive and significant association of the diversity in boards and value relevance of financial information of listed companies in the East African securities exchanges. This reveals that for East African listed firms, a firm with a board of diverse composition of directors the accounting information reported significantly affects the market prices of its shares. The findings of the study were consistent to those of Agostino et al. (2011), Velte (2017) and Siekkinen (2017) which found that the existence of diversity in a firm's board has a positive and significant association to the market prices of the firm's shares. Therefore, it can be concluded that in a diverse board the financial information is considered value relevant for listed firms in the East African community securities exchanges.

5.6.1.3 Board Diversity and Qualitative Characteristics of Accounting Information

The composite board diversity index of the board diversity reveals a statistically significant association between diversity of boards and the qualitative characteristics of financial information for quoted companies in East Africa. The regression output indicates existence of a relation between diversity of boards and qualitative characteristics of accounting information. This means that a board which is diverse is likely to report more qualitative accounting information as compared to a non-diverse board. Therefore, the hypothesis that board diversity does not influence significantly the qualitative characteristics of financial information was not confirmed. The above results are consistent to the results of Omoro (2014) which established that director age, functional background and tenure in the top

management team positively influence fundamental qualitative characteristics while gender and education were negatively associated with fundamental qualitative characteristics in Kenyan firms. The above results are highlighted in Table 5.18 below.

Table 5.18: Summary of Objective One and Related Hypothesis

Objective	Hypothesis	Sub-hypothesis	Findings	Result	Interpretation
To determine the impact of diversity of boards on accounting quality for quoted companies in EAC securities' exchanges	Diversity of Board do not significantly impact on the quality of accounting information of listed firms in the East African Community	Diversity in boards do not significantly impact management of earnings of quoted companies in the East African Community	Diversity of boards do not significantly impact on earnings management of quoted companies in East African Community	Reject	Board diversity significantly affect earnings management of quoted companies in East African Community (P=.000)
		Board diversity do not significantly impact on the value relevance of quoted companies in East African Community	Board diversity does not significantly impact on value relevance of quoted companies in the East African Community	Reject	Board diversity significantly affect the value relevance of quoted companies in East African Community (P=0.000)
		Board diversity do not significantly impact on the fundamental qualitative characteristics of quoted companies in the East African Community	Board diversity do not significantly impact the fundamental qualitative characteristics of quoted companies in East African Community	Reject	Board diversity significantly affect the fundamental qualitative characteristics of quoted companies in East Africa Community (P=0.039)

Source: Research Findings, 2022

5.6.2 Board Diversity, IFRS Adoption and Accounting Quality

The second research hypothesis hypothesized that IFRS adoption significantly mediates the association of diversity of boards and accounting quality for quoted companies in East African securities' exchanges. Since accounting quality was assessed using three indicators of discretionary accruals, value relevance and fundamental qualitative characteristics, the discussion was split into relevant section discussing each indicator of accounting quality in the section that follows. The qualitative characteristics did not meet the first condition of mediation and therefore was not tested for mediation.

5.6.2.1 Board diversity, Adoption of IFRS and Earnings Management

The first sub-hypothesis of the second hypothesis of the study hypothesized that adoption of IFRS mediates the association between board diversity and management of earnings. Mediation test was performed by use of Baron and Kenny (1986) approach. The mediation tests reveal insignificant results in the test of mediation. Therefore, that the hypothesis that the adopting IFRS do not significantly mediate the association between diversity of boards and earnings management of companies listed in East African Community is confirmed. This can be attributed to the existence of generally low regulatory quality and the low scores of the observance of the rule of law measures of the East African countries.

The above results contradict the findings of Vantendeloo and Vanstream (2005) who analyzed the impact of adoption of IFRS on earnings management and reported that adopting IFRS leads to lower incidences of earnings management. The findings further contradict that of Capkum et al. (2016) who analyzed the effect of IFRS adoption on management of earnings across 29 nations and establish that countries having weak enforcement mechanisms the adoption of IFRS permits flexibility presenting cases of

management of earnings in firms. The contradictory results can be attributable to the lower levels of legal enforcement indicators for EAC nations, further, the results point to the possibility of existence of other factors impacting on the quality of accounting information that have a higher impact than the adoption of accounting standards.

5.6.2.2 Board Diversity, IFRS Adoption and Value Relevance of Accounting

Information

The first sub-hypothesis of the second hypothesis of the study hypothesized that adoption of IFRS mediates the association between diversity of boards and value relevance. Mediation tests was done using the approach developed by Baron and Kenny (1986). The mediation tests reveal insignificant results in the test of mediation. Therefore, that the hypothesis that the adoption of IFRS does not significantly mediate the association of board diversity and management of earnings by companies listed in the East African Community is confirmed. The results therefore imply that IFRS adoption in East Africa affect value relevance of financial information. The findings of the study are inconsistent to that of Agostino et al. (2011) which analyzed effect of adopting IFRS on the share prices of European banks and established that value relevance of financial information for banks in Europe enhanced in a context of mandatory adopting IFRS. Further, the findings also contradict the findings of Vantendeloo and Vanstream (2005) who established a significant effect of adopting IFRS on the quality of accounting information. The variation in results of the current study can be attributed to the lower levels of legal enforcement mechanisms as compared to the countries where the studies reviewed were undertaken.

5.6.2.3 Board Diversity, IFRS Adoption and Qualitative Characteristics of Accounting Information

The first sub-hypothesis of the second hypothesis of the study hypothesized that IFRS adoption mediates the association between diversity of boards and qualitative characteristics. Baron and Kenny's (1986) test for mediation was utilized. The mediation tests reveal significant results in the test of mediation. Therefore, that the hypothesis that adopting IFRS do not significantly mediate the association of diversity in boards and qualitative characteristics of companies that are listed in East African Community is not confirmed. The study's findings are consistent to that of Agostino et al. (2011) which analyzed the impact of adopting IFRS on share prices of European banks and established that value relevance of financial information for banks in Europe improved after mandatorily adopting IFRS, the findings also are consistent to those of Vantendeloo and Vanstream (2005) who established high quality accounting information with the adoption of IFRS, implying that adopting IFRS improves the qualitative information of firms in the EAC countries. The summary is highlighted in Table 5.19 below.

Table 5.19: Summary of Objective Two and Related Hypothesis Tests

Objective	Hypothesis	Sub-hypothesis	Result	Interpretation
To evaluate the impact of adopting IFRS on the association of board diversity and	The adoption of IFRS does not significantly mediate the association of board diversity and Accounting Quality of	The adoption of IFRS does not significantly mediate the association of diversity of boards and discretionary accruals of companies listed in East African Community	Fail to reject	The adoption of IFRS does not significantly mediate the association between diversity of boards and discretionary accruals of companies listed in East African Community

Objective	Hypothesis	Sub-hypothesis	Result	Interpretation
quality of accounting for firms quoted in the EAC securities' exchanges	companies listed in the East African Community	The adoption of IFRS does not significantly mediate the association of diversity of boards and value relevance of companies listed in East African Community	Fail to reject	The adoption of IFRS does not significantly mediate the association of diversity in boards and value relevance of companies listed in the East African Community
		The adoption of IFRS does not significantly mediate the association of diversity in boards and qualitative characteristics of accounting for companies listed in East African Community	Reject	The adoption of IFRS does significantly mediates the association between diversity in boards & qualitative characteristics of accounting for firms listed in the East African Community

Source: Research Findings, 2022

5.6.3 Board Diversity, Legal Enforcement and Accounting Quality

The empirical and theoretical literature reviewed indicates a strong influence on the reported financial information quality. Literature points to the fact that a strong legal enforcement mechanism enhances the quality of accounting due to the possible disciplinary mechanism that the regulators enforce on firms and individuals in breach of the legal requirements. Studies on this have however not been conclusive since influence is dependent on whether a country is a common law or civil law. The legal mechanism in place also stipulates the appointment procedures of a company's directors. It is from this that the study hypothesized that legal enforcement does not moderate the association between diversity in boards and the quality of financial information for companies that are listed in East African securities exchanges. Discussions based on the three indicators of

accounting quality of earnings management, value relevance and qualitative characteristics of accounting information are discussed below.

5.6.3.1 Board Diversity, Legal Enforcement and Earnings Management

In order to test for moderation, an interaction term was regressed together with board diversity to evaluate their impact on accounting quality for quoted companies in East Africa. Stepwise regression approach was then applied in testing for moderation. The moderating effect of legal enforcement was analyzed using quality of regulation and the rule of law. Using the regulatory quality, the interaction term was significant, indicating the existence of moderation impact of regulatory quality on the relationship between diversity of boards and earnings management. The findings of the current study are consistent to that of Filip et al. (2014) and Tang et al. (2016) which reported significant relationship with legal mechanisms and the quality of financial reporting across several countries, this implies that the legal mechanisms is an important determinant of the quality of financial information reported by EAC listed firms, board diversity was however was not considered by the two studies.

Using the rule of law, the results of regression analysis indicate a significant model, therefore, the results reveal that the rule of law moderated the association of diversity in boards and management of earnings. The interaction term was also significant which confirms the existence of moderation of legal enforcement on the association between diversity in boards and management of earnings. The study's findings are consistent to that of Filip et al. (2014) and Tang et al. (2016) which reported a significant association

between legal mechanisms and the quality of financial reporting across several countries. The two studies however failed to take into account the contribution of diversity in boards.

5.6.3.2 Board Diversity, Legal Enforcement and Value Relevance of Accounting

Information

For the test of moderation, an interaction term was formulated by multiplying each of the legal enforcement indicator of regulatory quality and rule of law were multiplied by the board diversity and then regressed with the second indicator of accounting quality (value relevance) as per the Baron and Kenny (1986) approach. Since legal enforcement was assessed using two indicators of rule of law and the quality of regulation. The results of the regulatory quality indicate a significant model however the interaction term was not significant. The results therefore reveal that the regulatory quality does not moderate the association of diversity in boards and value relevance of financial information. The study results contradict the findings of Isidro and Raonic (2012) which reported a significant relationship between legal mechanisms and value relevance of financial information, this can be related to the lower levels of legal enforcement mechanisms in the EAC countries as compared to the countries where the study was undertaken.

When rule of law was used, the results revealed significant models however, the interaction term was not statistically significant. Therefore, the rule of law does not moderate the association between diversity of boards and value relevance of financial reporting information. Therefore, the hypothesis that rule of law does not significantly moderates the association of diversity in boards and value relevance is confirmed. The study results are inconsistent with that of Isidro and Raonic (2012) which report a significant relationship of

the legal mechanisms and financial reporting information value relevance. This inconsistency can be related to the lower levels of legal enforcement mechanisms in the EAC countries as compared to the countries where the study was undertaken.

5.6.3.3 Board Diversity, Legal Enforcement and Qualitative Characteristics of Accounting Information

In order to test for moderation, an interaction term was formulated by multiplying each of the legal enforcement indicator of regulatory quality and rule of law were multiplied by the board diversity and then regressed with the third indicator of accounting quality (qualitative characteristics) as per the approach of Baron and Kenny (1986). Stepwise regression analysis was then applied in testing for moderation. Two indicators: rule of law and quality of regulation measures of legal enforcement were applied for the study. The results of the moderation effect of the regulatory quality indicate a statistically insignificant model, the interaction term was also not statistically significant, this means that the regulatory quality does not moderate the relationship between diversity of boards and qualitative characteristics of the financial information. Results of the study are not consistent to the findings of Filip et al. (2014) and Tang et al. (2016) who report significant association between legal mechanisms and quality of financial reporting across several countries. The two studies however failed to consider the influence of diversity in boards.

The rule of law indicator results of the analysis indicates a statistically significant model, however, the interaction term was however not significant, meaning that the rule of law did not moderate the association between diversity of boards and the qualitative characteristics of financial information for East African listed firms. The interaction term was statistically insignificant. The results of the study therefore reveal that the rule of law does not significantly moderate the association between diversity of boards and qualitative characteristics of financial information. The study results are inconsistent to that of Filip et

al. (2014) and Tang et al. (2016) which reported significant association between legal mechanisms and the quality of financial reporting across several countries. The two studies however failed to consider the impact of diversity in boards. Summaries of the above discussion is highlighted in Table 5.20 below.

Table 5.20: Summary of Objective Three and Related Hypothesis Tests

Objective	Hypothesis	Sub-hypothesis	Result	Interpretation
To examine the effect of legal enforcement on the association between board diversity and accounting quality of firms listed at the EAC securities' exchanges	Legal Enforcement does not moderate significantly the association between diversity of boards and Accounting Quality of companies listed in the East African Community	Regulatory quality does not moderate significantly the association between diversity of board and earnings management of companies listed in the East African Community	Reject	Regulatory quality significantly moderates the association between diversity of boards and management of earnings of firms listed in East African Community
		Rule of law does not significantly moderate the association between diversity of boards and management of earnings for companies quoted in the East African Community	Reject	Rule of law significantly moderates the association between diversity of boards and management of earnings of companies listed in East African Community
		Regulatory quality does not significantly moderate the association between diversity of boards and value relevance of companies listed in East African Community	Fail to reject	Regulatory quality does not moderate significantly the relation between diversity of boards and value relevance of companies listed in East African Community
		Rule of law does not significantly moderate the relation between diversity of boards and value relevance of companies listed in East African Community	Fail to reject	Legal Enforcement does not significantly moderate the relation between diversity of boards and value relevance of companies listed in East African Community
		Regulatory quality does not significantly moderate the relationship between board diversity and Qualitative characteristics of firms listed in East African Community	Fail to Reject	Regulatory quality not does significantly moderate the relation between diversity of boards and Qualitative characteristics of companies listed in East African Community
		Rule of law does not significantly moderate the association between diversity of boards and Qualitative characteristics of firms listed in the East African Community	Fail to reject	Rule of law does not significantly moderate the relation between diversity of boards and Qualitative characteristics of companies listed in East African Community

Source: Research Findings, 2022

5.6.4 Board Diversity, IFRS Adoption, Legal Enforcement and Accounting Quality

Establishment of the joint impact of diversity in boards, IFRS adoption, legal enforcement and information quality of quoted firms in East African securities exchanges was the fourth objective of the current study. This was informed by the literature reviewed and the theories underpinning the study from which it was anticipated that board diversity, adoption of IFRS and legal enforcement jointly influence accounting quality. This resulted to the formulation of the fourth hypothesis of the study as follows:

5.6.4.1 Board Diversity, IFRS Adoption, Legal Enforcement and Earnings Management

Board diversity, IFRS adoption and regulatory quality as predictors of earnings management using regression analysis indicate a significant regression model. The results therefore mean that IFRS adoption and the regulatory quality jointly and significantly affect the relation between diversity in boards and management of earnings for firms listed in East African Community. The current study's results concur with Walundiri and Rahman (2004) findings which established that accounting standards and strong mechanisms of enforcement results to higher quality of financial information. The results further confirm the findings of Bushman and Piotroski (2006) who analyzed the effect of a financial reporting incentives created by a country's institutional characteristics on earnings management, their findings indicate that countries having a strong mechanism of protecting investors generally report high quality financial information, countries with weak enforcement mechanisms are expected to report low quality accounting.

The use of the rule of law, results in a significant regression model having board diversity, rule of law and adoption of IFRS as predictors of earnings management. The results therefore mean that rule of law and adoption of IFRS law jointly and significantly affect the relation between diversity of boards and management of earnings for firms listed in East African Community. The results of the current study are consistent to Walundiri and Rahman (2004) findings that established that a strong mechanism of enforcement and accounting standards results to a more value relevant financial reporting information. The results are also consistent to the results of Bushman and Piotroski (2006) who analyzed the impact of financial reporting incentives created by a country's institutional characteristics on earnings management, their findings indicate that countries having strong mechanisms of protecting investor reported high quality financial information, countries with weak enforcement mechanisms are expected to report low quality accounting. Further, the results confirm the findings of Srinidhi et, al. (2014) who established that gender diverse boards report high quality financial information.

5.6.4.2 Board Diversity, IFRS Adoption, Legal Enforcement and Value Relevance of Accounting Information

The regression analysis of board diversity, IFRS adoption and regulatory quality as predictors of value relevance of financial reporting information for listed East African companies indicate significant relationship. The results of the study therefore mean that IFRS adoption and the regulatory quality jointly and significantly affect the relation between diversity of boards and value relevance of companies that are listed in East African Community. The current results are in concurrence to Walundiri and Rahman (2004)

findings which established that accounting standards and strong enforcement mechanisms results to higher value relevance of financial information, the study however failed to consider the effect of board diversity. The results confirm the findings of Isidro and Raonic (2012) which established strong association between a strong legal enforcement mechanisms and value relevance.

The regression analysis results indicate significant regression model with board diversity, rule of law and adoption of IFRS as predictors of value relevance of financial information. The findings therefore mean that adoption of IFRS and rule of law jointly and significantly affect the relation between diversity of boards and value relevance of companies listed in East African Community. The results are consistent with that of Walundiri and Rahman (2004) which established that strong enforcement mechanisms and accounting standards results to high value relevance of financial information. The findings of the study concur with that of Agostino, et. (2011), Siekkinen (2017) and Alade (2018) which establish that IFRS adoption and board attributes significantly enhance the value relevance of financial reporting information, implying that the adoption of IFRS generates value relevant financial information for firms listed in EAC.

5.6.4.3 Board diversity, IFRS Adoption, Legal Enforcement and Qualitative

Characteristics of Accounting Information

The regression output produced a significant regression model with board diversity, IFRS adoption, and regulatory quality as predictors of qualitative aspects of financial information. The above results, therefore mean that IFRS adoption and the regulatory

quality jointly and significantly affect the relation between diversity of boards and qualitative characteristics of companies listed in East African Community. The results confirm the findings of Walundiri and Rahman (2004) which established that application of accounting standards and a strong mechanism of enforcement results to more value relevance of financial reporting information. The above findings are consistent to that of Omoro (2014) who established significant association between board's diversity and qualitative characteristics, this implies that the individual director attributes significantly determine the qualitative attributes of financial information by listed EAC firms.

The use of rule of law, the regression results indicate a significant regression model, indicating that board diversity, IFRS adoption and the rule of law significantly and jointly predicts the qualitative attributes of financial information for listed firms in East Africa. The results therefore imply that adoption of IFRS and the rule of law jointly do not significantly affect the association between diversity of boards and qualitative characteristics of companies listed in the East African Community is not confirmed. The findings are consistent to that of Omoro (2014) who established a significant association between diversity of boards and qualitative characteristics, although the study failed to consider the impact of adopting IFRS and legal enforcement. The results also confirm the findings of Walundiri and Rahman (2004) which established that application of accounting standards and a strong mechanism of enforcement results to high value relevance of financial information. A summary of tests of hypothesis is highlighted in Table 5.21 below.

Table 5.21: Summary of Objective Four and Related Hypothesis Tests

Objective	Hypothesis	Sub-hypothesis	Result	Interpretation
Establish the joint impact of diversity in boards, adoption of IFRS and Legal Enforcement on quality of financial information of quoted companies at the EAC securities' exchanges	IFRS adoption and Legal Enforcement jointly do not significantly affect the relation between diversity of boards and Accounting Quality of quoted companies in East African Community	IFRS adoption and regulatory quality jointly do not significantly affect the relation between diversity of boards and earnings management of quoted firms in East African Community	Reject	IFRS adoption and regulatory quality jointly and significantly affect the relation between diversity of boards and earnings management of quoted firms in East African Community (P = 0.001)
		IFRS adoption and rule of law jointly do not significantly affect the relation between diversity in boards and earnings management of companies listed in East African Community	Reject	IFRS adoption and rule of law jointly and significantly affect the relation between diversity of boards and earnings management of quoted companies in East African Community (P=0.002)
		IFRS adoption and regulatory quality jointly do not significantly affect the association between diversity of boards and value relevance of companies listed in East African Community	Reject	IFRS adoption and regulatory quality jointly and significantly affect the association between diversity of boards and value relevance of companies listed in East African Community (P=0.002)
		IFRS adoption and rule of law jointly do not significantly affect the relation between diversity in boards and value relevance of firms listed in East African Community	Reject	IFRS adoption and rule of law jointly and significantly affect the relation between diversity in boards and value relevance of companies listed in East African Community (P=0.003)
		IFRS adoption and regulatory quality jointly do not significantly affect the relation between diversity of boards and Qualitative characteristics of companies listed in East African Community	Reject	IFRS adoption and regulatory quality jointly and significantly affect the relation between diversity of boards and Qualitative characteristics of companies listed in East African Community (P=0.000)
		IFRS adoption and rule of law jointly do not significantly affect the association between diversity of boards and qualitative characteristics of companies listed in East African Community	Reject	IFRS adoption and rule of law jointly and significantly affect the association between diversity of boards and qualitative characteristics of companies listed in East African Community (P=0.000)

Source: Research Findings, 2022

5.7 Chapter Summary

Evaluation of the impact of board diversity, adoption of IFRS, legal enforcement and accounting quality of quoted East African firms was the main objective of the study. The main objective was split into four specific objectives. Accounting quality was analyzed using discretionary accruals, value relevance of financial information and the qualitative characteristics of financial information. Board diversity was evaluated using the indicators of age, gender, functional background, education, tenure and geographical diversities and also the composite board diversity index. The chapter presented the findings of various hypothesis tests relating to the study's four objectives followed by a discussion of the research results.

The first hypothesis of the study investigated the association between diversity of boards and accounting quality of quoted companies in East Africa. Using the composite diversity index, the results indicate a significant and negative relation between diversity of boards and management of earnings. The relation between diversity of boards and value relevance returned a significant and positive association between diversity of boards and value relevance of financial reporting information. The analysis with qualitative characteristics and board diversity using the composite board diversity index indicates a significant and positive relation between diversity of boards and the qualitative characteristics of financial reporting information.

Determination of the mediating impact of IFRS adoption on the association between board diversity and accounting quality of companies that are listed in the East African Community was study's second hypothesis. The regression results of board diversity, adoption of IFRS and financial information quality using the quality indicators of: value

relevance and discretionary accruals did not meet the mediation criteria by Baron and Kenny (1986), while fundamental qualitative characteristics confirmed mediation of IFRS on the association between diversity of boards and accounting quality. Therefore, IFRS adoption does not significantly mediate the association of diversity in boards and financial information quality indicators of: management of earnings and value relevance of financial reporting information. IFRS mediation impact on the association between diversity in boards and qualitative characteristics of financial information was however established.

The study's third hypothesis was to determine the moderation impact of legal enforcement on the relation between diversity of boards and accounting quality of companies that are listed in the East African Community. Legal enforcement was measured using WGI indicators of the rule of law and regulatory quality. The findings of moderation tests reveal that both the regulatory quality and the rule of law significantly moderate the association between diversity of boards and management of earnings. No moderation effect was established for both value relevance and the fundamental qualitative characteristics of financial reporting information using both indicators of the regulatory quality and the rule of law for East African firms.

The last hypothesis of the study was to examine the joint impact of adoption of IFRS and legal enforcement on the association between board diversity and accounting quality for firms that are quoted in East African Community securities exchanges. The joint regression examination of board diversity, IFRS adoption, regulatory quality and discretionary accruals indicate significant model thus establishing the joint effect. The joint regression analysis of board diversity, IFRS adoption, rule of law and discretionary accruals indicate

significant model thus establishing the joint effect. The joint effect test on board diversity, IFRS adoption and regulatory quality on value relevance indicate a statistically significant model, confirming joint effect. The joint effect test of board diversity, adoption of IFRS and rule of law on value relevance yielded a statistically significant regression model, this confirms the existence of a joint effect. Further, the joint impact of diversity in boards, adoption of IFRS and quality of regulation on the fundamental qualitative attributes of financial information establish a statistically significant model therefore confirming the presence of a joint impact of board diversity, IFRS adoption and regulatory quality on the fundamental qualitative characteristics of accounting information. Lastly, the joint effect of board diversity, adoption of IFRS and rule of law on fundamental qualitative aspects of financial information, the results of the test revealed a statistically significant model therefore confirming the presence of a joint impact of diversity in boards, adoption of IFRS and the rule of law on fundamental qualitative attributes of financial information. Arising from the above analysis tests of hypothesis study objective and hypothesis tests is summarized in Table 5.22 below.

Table 5.22: Summary of Research Objectives, Hypothesis and Results

Objective	Hypothesis	Sub-hypothesis	Result
To determine the effect of diversity of boards on accounting quality of quoted companies at the EAC securities' exchanges	Diversity in boards do not significantly impact on accounting quality of quoted companies in the East African Community	Board diversity do not significantly impact earnings management of companies quoted in the East African Community securities exchanges	Reject
		Board diversity do not significantly impact on value relevance of listed firms in the East African Community	Reject
		Board diversity do not significantly impact on fundamental qualitative characteristics of listed companies in East African Community	Reject
To evaluate the impact of adopting IFRS on the association between diversity of boards and accounting quality for firms quoted in the EAC securities' exchanges	The adoption of IFRS does not significantly mediate the association between diversity of boards and Accounting Quality of companies listed in East African Community	The adoption of IFRS does not significantly mediate the association between diversity of boards and discretionary accruals of companies listed in East African Community	Fail to Reject
		The adoption of IFRS does not significantly mediate the association between diversity in boards and value relevance of companies listed in East African Community	Fail to Reject
		The adoption of IFRS does not significantly mediate the association between diversity in boards and qualitative characteristics of accounting for companies listed in East African Community	Reject
To examine the impact of legal enforcement on the relation between diversity in boards and accounting quality for companies quoted in EAC securities' exchanges	Legal Enforcement do not significantly moderate the association between diversity in boards and Accounting Quality of quoted companies in EAC	Regulatory quality do not significantly moderate the association between diversity in boards and earnings management of companies quoted in East African Community	Reject
		Rule of law do not significantly moderate the association between diversity of boards and earnings management of companies quoted in East African Community	Reject
		Regulatory quality do not significantly moderate the association between diversity of boards and value relevance of companies listed in East African Community	Fail to Reject

Objective	Hypothesis	Sub-hypothesis	Result
		Rule of law o not significantly moderate the association between diversity of boards and value relevance of companies listed in East African Community	Fail to reject
		Regulatory quality o not significantly moderate the association between diversity of boards and Qualitative characteristics of companies listed in East African Community	Fail to Reject
		Rule of law o not significantly moderate the association between diversity of boards and Qualitative characteristics of companies listed in East African Community	Fail to reject
Establish the joint impact of board diversity, adoption of IFRS and Legal Enforcement on the quality of financial information of firms listed at EAC securities' exchanges	IFRS adoption and Legal Enforcement jointly do not significantly affect the association between diversity of boards and Accounting Quality for quoted companies in East African Community	IFRS adoption and regulatory quality jointly do not significantly affect the association between diversity in boards and management of earnings quoted companies in East African Community	Reject
		IFRS adoption and rule of law jointly do not significantly affect the association between diversity in boards and management of earnings quoted companies in East African Community	Reject
		IFRS adoption and regulatory quality jointly do not significantly affect the association between diversity in boards and value relevance of quoted companies in East African Community	Reject
		IFRS adoption and rule of law jointly do not significantly affect the association between diversity in boards and value relevance of quoted companies in East African Community	Reject
		IFRS adoption and regulatory quality jointly do not significantly affect the association between diversity in boards and Qualitative characteristics of quoted companies in East African Community	Reject
		IFRS adoption and rule of law jointly do not significantly affect the association between diversity in boards and Qualitative characteristics of quoted companies in East African Community	Reject
		IFRS adoption and rule of law jointly do not significantly affect the association between diversity in boards and Qualitative characteristics of quoted companies in East African Community	Reject

Source:

Research

Findings,

2022

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSIONS AND IMPLICATIONS

6.1 Introduction

This chapter summarizes the results of current study's findings in relation to the research hypothesis, conclusions derived out of the study as informed by each objective of the study, the contributions of current study to both practice and theory, limitations of the current study and finally areas of further research are highlighted in this chapter.

6.2 Summary of Research Findings

Analysis of the relationship between board diversity, IFRS adoption, legal enforcement and quality of financial information reported for quoted firms in East Africa securities exchanges was the study's main object. Board diversity was the study's independent variable, IFRS adoption was the intervening variable, and legal enforcement was the moderating variable while the dependent variable was quality of accounting information. It was expected that board diversity, IFRS adoption and legal enforcement will significantly influence the quality of accounting for quoted companies in East Africa. Board diversity was tested for the effect of age, gender, tenure, functional background, education and geographical background diversities, these indicators were averaged by use of coefficient of variation and blau index to obtain a composite board diversity index combining the above diversity indicators. Legal enforcement was analyzed using WGI indicators of the regulatory quality and the rule of law. Accounting quality was tested using three indicators of managing earnings (discretionary accruals), accounting information's value relevance and the fundamental qualitative characteristics. So as to realize the study's main object of the research, the study had four specific objects. These are discussed in the section below.

Assessment of the impact of a diverse board on accounting quality of quoted companies in the EAC securities' exchanges was the study's first object. The combined effect of the overall diversity of boards using a composite index was tested and the results indicate that the composite board diversity indicator had a significant negative association with management of earnings. In relation to financial information's value relevance, a significant positive association was established with the composite index of board diversity. Further, board diversity significantly influenced the financial information's qualitative characteristics.

The second study's objective involved testing the IFRS adoption intervening effect on the relation between a diverse board and accounting quality. Tests for mediation were done using Baron and Kenny's (1986) assessment criteria. As per the four mediation test steps, discretionary accruals and value relevance did not meet the mediation criteria therefore IFRS adoption does not mediate the relation between diversity of a board and quality of accounting for quoted companies in East African Community securities' exchanges as measured by discretionary accruals and value relevance, IFRS mediation was however established between board diversity and the qualitative attributes of financial information.

The study's third object was to analyze the moderation effect of legal enforcement on the association of board diversity and the accounting information quality for listed companies in East Africa. The composite diversity index was tested on each of the indicators of accounting quality. Legal enforcement was assessed using two indicators of the WGI indices, that is, rule of law and quality of regulation which were then applied to test for moderation. The test of moderation for both the rule of law and regulation quality on the

association of board diversity and discretionary accruals confirmed moderation of quality of regulation on the relation between a diverse board and discretionary accruals. Quality of regulation did not have a moderating impact on the association between diversity of boards and both the financial information's share price sensitivity and fundamental qualitative characteristics of financial reports for quoted firms in East Africa securities exchanges. The rule of law did not moderate the association of diversity of boards and both the value relevant and the fundamental qualitative characteristics of accounting information for listed firms in East Africa securities exchanges.

The study's fourth object was to assess the joint contribution of diversity of boards, adopting IFRS and legal enforcement on accounting information's quality of companies quoted at the EAC securities exchanges. The joint test was done on each of the accounting quality indicators of discretionary accruals, value relevance and the fundamental qualitative characteristics of financial information. Further since legal enforcement had two indicators, regulatory quality and the rule of law, each of these were incorporated to test the fourth objective. The findings of the joint test on the association of board diversity, IFRS adoption, regulatory quality and discretionary accruals indicates a statistically significant effect. Using the rule of law, IFRS adoption, board diversity and discretionary accrual also revealed a significant joint effect, thus, board diversity, IFRS adoption and rule of law jointly influence discretionary accrual levels for quoted companies in East Africa. The second indicator of quality of financial information was value relevance. The joint analysis of board diversity, IFRS adoption and regulatory quality on the value relevance reveals a significant relationship. This confirmed existence of joint influence of board diversity, adopting IFRS and the regulation quality on share price sensitivity of financial reporting for

quoted East African companies. The joint analysis of diversity in boards, adopting IFRS and rule of law on value relevance revealed a significant relationship confirming a joint effect of board diversity, adoption of IFRS and rule of law on the sensitivity of share prices to the financial information for firms listed at the East African countries' securities exchanges.

The third indicator of accounting quality was the qualitative attributes of financial information. Joint analysis of diversity of boards, IFRS adoption and regulatory quality on the qualitative characteristics indicates a significant relationship revealing a significant joint effect of board diversity, adopting IFRS and quality of regulations on the qualitative aspects of financial information for listed East African firms. The joint analysis of the board diversity, adopting IFRS and rule of law on the qualitative characteristics established a significant relationship therefore confirming a joint effect of board diversity, adopting IFRS and rule of law on the share price sensitivity to financial reporting by the quoted East African companies.

6.3 Conclusions of the Study

Arising from the current study's tests of hypothesis, the conclusions discussed below can be drawn from the study. The current study concludes that, there exists a significant relation between diversity of boards and quality of the accounting reports for companies listed in the East African securities exchanges. Therefore, higher diversity in boards enhances the quality of financial reports for companies that are listed in East Africa. Specifically, higher board diversity lowers incidences of managing earnings in firms. In addition, higher diversity in boards makes accounting information more value relevant for East African listed firms. A more diverse board also significantly improves the fundamental qualitative

properties of financial information reported by the listed firms in Kenya, Uganda, Tanzania and Rwanda.

The study hypothesized that the adopting IFRS does not significantly mediate the association of board diversity and the quality of financial information for listed firms in East Africa. The analysis confirmed this hypothesis by establishing a mediating role of IFRS adoption on the association of board diversity and the fundamental qualitative characteristics, while no mediation was established using discretionary accruals and the value relevance of accounting information. It can therefore be concluded from the study that IFRS adoption does not mediate the association of board diversity and the accounting quality (discretionary accruals and value relevance) for listed companies in East African community securities exchanges. This can be attributed to the low levels of legal enforcement in the East African countries, this founded on the fact the benefits of IFRS adoption are dependent on country specific factors in addition to firm specific determinants.

The study hypothesized that legal enforcement do not significantly moderate the association between board diversity and accounting quality of quoted companies in East Africa. The findings of the test confirm existence of a moderation effect of the regulatory quality (as measured by both the rule of law and the regulatory quality) on the association between board diversity and management of earnings. No moderation effect for both quality of regulation and rule of law was established on the association between board diversity and accounting quality measures of value relevance and fundamental qualitative attributes of financial information. It can be concluded therefore that regulatory quality moderated the

association between diversity of boards and management of earnings for the East African quoted companies.

The study hypothesized that there is no significant joint effect of adoption of IFRS and legal enforcement on the association between diversity of boards and accounting quality for quoted firms in East Africa. Adoption of IFRS There was a joint effect of IFRS adoption and regulatory quality on the relationship between board diversity and discretionary accruals. A joint effect of IFRS adoption and rule of law on the relation and quality of regulations had a significant effect on diversity of boards and discretionary accruals. A significant joint effect of IFRS adoption, regulatory quality on the relation between diversity of board and value relevance of financial information was established. A significant joint effect of adopting IFRS and rule of law on the association between diversity of boards and value relevance of financial information was also established. Further, a significant joint influence of IFRS adoption and regulatory quality on the relation between diversity of boards and the fundamental qualitative characteristics was established. Finally, a significant joint effect of IFRS adoption and rule of law on the association between diversity of boards and the fundamental qualitative characteristics was established for listed firms in East African securities exchanges

6.4 Contributions of the Study

The study analyzed the relation between board diversity, adoption of IFRS, legal enforcement and the quality of accounting information for quoted firms in the East African

Community. Arising from the study the following contributions can be derived with implications to both theory and practice:

6.4.1 Contribution to Theory

Studies that analyzed the relation between diversity of board on the financial reporting quality reviewed in this study were mainly conducted in the developed countries with mixed findings and results. Current study results contribute to existing literature on diversity of boards, adopting IFRS and the financial reporting quality by documenting the findings for the East African listed firms.

The study was guided by testable hypothesis that were to validate or falsify a theory. The current study aided the validation of theories on diversity in boards attributes and their effects on firm outcomes, financial reporting, quality of financial information among other firm outcomes. This further helps to understand the relation between board diversity, adopting IFRS, legal enforcement and the financial reporting quality. Specifically, upper echelons theory emphasizes the impact of the top management traits on the firm outcomes and the management of discretionary choices that may result in the management of earnings by boards. The significant relationship between diversity of boards and the financial reports quality in EAC confirmed that upper echelons is relevant for firms quoted in East Africa. The study also confirmed existence of the role of directors in monitoring of the firm by establishing a link between diversity in boards and the quality of accounting information reported. Current study established a significant joint effect of board diversity, adopting IFRS and enforcement of laws on board diversity for EAC firms, proving the relevance of

decision usefulness theories in EAC. The existence of a moderation effect of legal enforcement on the relation between diversity of boards and accounting quality further confirmed the relevance of policeman theory for EAC listed firms.

The study generally reported weak accounting quality for the quoted companies in East African Community's securities exchange. This is attributable to the existence of information asymmetry between firms and their shareholders as was revealed by the accounting quality measures adopted in the study. Disclosures through financial reporting serves to control agency problems in cases where firm ownership is dispersed. The market regulators should ensure that the quality of accounting is enhanced by having updated financial reporting templates that incorporate the latest accounting standards and their related revisions. One peculiar observation was that for all the financial reports analyzed had very few had glossaries or explanations of terms or abbreviations used, revealing possible information asymmetry challenges. Further there is need to enhance the financial disclosures through prescription of enhanced disclosures in financial reporting in order to make financial reporting more understandable and to satisfy the users' needs.

The current study formulated a conceptual framework that describes the association between the study variables, which can be adjusted or applied in different jurisdictions or industries to analyze the link amongst board diversity, IFRS adoption, legal enforcement, and accounting quality. Furthermore, the study presents evidence for the mediating and moderating effects of IFRS adoption and legislative enforcement mechanisms on the link between board diversity and the financial information quality, where no study in the literature examined has looked at both variables together.

The study examined impact of diversity in boards, adopting IFRS, legal enforcement and the financial information quality for quoted firms in East Africa's Community securities exchanges. The study establishes that a diverse board in an environment of strong legal mechanism strongly influences accounting quality, it is therefore imperative that the EAC nations need to develop quota guidelines for sections such as the women and youth in order to improve diversity in boards.

6.4.2 Contribution to Practice

The study's findings will help capital market authorities and stock markets in the East African Community put in place measures to foster diversity on boards of directors, as well as raise awareness among listed companies about the need of diverse boards. Regulators can also adopt policies to increase board diversity and tighten the reporting structure to enhance the quality of accounting data reported. This can be accomplished by establishing minimum disclosure rules for publicly traded companies.

The study's findings serve as a foundation for establishing a strategy to enhance the financial reporting quality and board diversity. The levels of board diversity within the EAC listed firms was generally low and therefore the shareholders of firms in appointing their boards can consider to have a wider representation in terms of the directors' traits so as so avoid homogeneity in management and decision making in firms by the board of directors. The market regulators can also develop guidelines to provide for quota system of appointment of directors to effectively enhance the levels of diversity in boards.

The Institutes of Certified Public Accountants and other regulators of the accountancy profession within the East African community which are responsible for issuance of

accounting standards and regulating the accounting profession should closely work with the capital market regulators to develop measures geared towards reducing the current asymmetry of information between company executives and outsiders, primarily owners and potential investors. This will enhance quality of the information reported by public listed companies through their financial reports.

6.4.3 Contribution to Policy

The study indicates generally low levels of diversity within boards of the quoted companies in the East African countries. Arising from the current study's findings, regulators of financial markets such as the capital markets authority and the stock exchanges may formulate regulations to enforce diversity in boards so as to realize the diversity benefits realized in other jurisdictions. These regulations need to also include rotation of directors and allocation of certain quotas to the various categories of directors such as women and different age profiles. This will enhance diversity in boards. The shareholders of listed firms can be guided by the study's results in considering the appointment of directors in the annual general meetings of firms.

East African countries, from the study were observed to generally have low levels of legal enforcement. The market regulators need to enforce the established laws by formulating policies to instill disciplinary mechanisms on the offending parties in order to ensure compliance and adherence to laws. This will serve to ensure companies consistently report high quality accounting information. Shareholders can use the study's results to ensure good quality financial information is presented by managers during the discussions of financial results of a firm.

The findings of the study report low levels of accounting quality for the East African firms analyzed. The accounting regulators in formulating the accounting standards, accounting regulators need to ensure that compliance to IFRS, this can be realized by making IFRS reporting mandatory for all firms in East Africa. This will ensure high quality financial reports in stock markets. Strict and punitive disciplinary action should be taken for breach of the established policies in order to ensure adherence.

6.4.5 Areas of new knowledge

The study established an impact of legal enforcement on the relationship between a board's diversity and the quality of financial information for East African Community's listed firms. Specifically, WGI's governance indices of quality of regulations and the rule of law and the regulatory quality were used as indicators of legal enforcement. The study established that the quality of regulations was an important determinant of the financial information quality reported by listed East African companies.

The study established that board diversity significantly affects the financial reporting quality for listed firms in EAC. This implies that firms that directors' attributes dispersion is a critical contributor to the financial report's quality for East African firms, while board diversity effect on the financial reporting quality generated by firms had been established in other jurisdictions, mainly the developed economies, the current study established existence of the association between a board's diversity and accounting quality for listed EAC firms. The results of the study further observed generally low levels of diversity in boards for East

African listed firms, this is attributable to non-existent quotas for various cadres of the directors such as the youth and women.

The study was founded on various corporate governance and financial reporting theories: the upper echelons, agency, information asymmetry, policeman, decision usefulness and resource dependence theories to analyze the contribution of having a diverse board, IFRS adoption and legal enforcement on quality of financial information reported by firms in EAC countries. The significant joint relationship, among the study variables analyzed, established confirm the relevance and applicability of the theories in the East African Community listed firms.

6.5 Limitations of the Study

The current study adopted regression analysis to perform the statistical analysis and hypothesis testing a study to look into the link with board diversity and quality of accounting. Various statistical tools and models have varying advantages and disadvantages in the results they yield. The use of other statistical analysis such as structural equation modelling or path analysis for a similar study may have yielded better results which could be more robust and generalizable than the current study's results.

The study utilized multiple regression to assess the relationship between diversity of boards and accounting quality for quoted East African firms. This assumes linear association between a board's diversity and accounting quality of quoted companies. The diversity of boards draws from human behavior and individual traits which may override the traits under study, thus may be predictable or inform decisions or choices of an individual. The

relationship may not necessarily be linear; it may be curvilinear resulting to negative effects on quality of financial information reported.

Current study analyzed EAC's listed companies to document the effect of board diversity, adoption of IFRS and legal enforcement on the quality of financial reports presented. The choice of quoted companies in East Africa means that findings of the current study are not generalized for other jurisdictions due to the low level of diversity. Further, there are many cross listed firms mainly from Kenya which limits the number of firms to be analyzed. In addition, the East African community listed firms vary in number across the countries with Burundi having no formal market yet. This further affects the generalization of the findings of the study.

The current study analyzed the demographic traits of board of directors which only looks at the observable traits. Specifically, the study considered age, gender, tenure, functional background, education and geographical diversities to assess board diversity. This omitted the non-observable traits which may be significant in explaining the board diversity trait of boards. Other diversity traits such as ethnicity, religion and culture may have returned different results from the ones documented in this study.

6.6 Areas of Further Research

The current study analyzed the effect of diversity of boards, adoption of IFRS, legal enforcement and financial information quality for quoted firms in East African Community securities exchanges. Arising from the study future researchers can look at the following areas in the future. The current study only considered diversity attributes of age, gender, functional background, tenure, education and geographical diversity. Inclusion of other

board attributes such as independence, culture, religion and cognitive attributes such as individual director character and other unobservable traits such as religion and culture may have returned better results than reported in the current study.

Future researchers should consider other data analysis and methodological approaches other than mainly the regression analysis which assumes linearity of association of boards' diversity of boards and quality of reported financials, the relationship may not be linear which may account for the low predictability of the model adopted for the current study. Other data analysis approaches such as structural equation modelling and non-linear regression analysis may yield more robust findings than the results documented by the study.

The current study considered quoted companies in the East African Community to analyze the association between boards' diversity and accounting quality. It was observed that the listed companies analyzed were mainly privately owned or government owned and are often characterized by minimal directors' turnover which affected the outcome of the current study. Future researchers can consider other firms other than listed firms such as non-listed entities or even family run entities which are likely to have more diverse boards due to the need to have professional skill that are lacking in the family; therefore, such firms may yield deeper insights in order to understand board demographics and their relationship with accounting quality.

Accounting quality in the current study was measured by indicators such as management of earnings as was assessed by accruals (discretionary); value relevance; and qualitative attributes of financial information. The use of other alternate indicators of quality of

accounting reporting like earnings response coefficient and timelines may help broaden the resulted in better results if a similar study was to be replicated by future scholars analyzing the contribution of diversity of boards on the quality of financial information.

Legal enforcement was assessed using quality of regulation and rule of law indicators to assess their moderation effect on the relation between diversity of boards and accounting quality of quoted companies in the East African Community. Future scholars may consider using other legal enforcement mechanisms indicators such as judicial efficiency and corruption index to analyze the moderating effect of legal mechanisms.

The current study considered quoted companies in four East African countries so as to examine the effect of a diverse board on accounting quality. Neighboring countries are often tied with trade and customs treaties which often impact on the respective legal mechanisms of the sovereign nations. So as to fully examine the effect of legal apparatus on accounting quality, future researchers can consider widening scope of study to cover more countries, especially in developing countries, in order to fully bring out the resultant contribution of the various legal systems in place on the condition of financial reports. Such broadening of the study's scope may yield better results than the current study.

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APPENDICES

APPENDIX I: Qualitative Characteristics Data Capture Form

Company Name:

S/NO	QUESTION		13	14	15	16	17	18	19	20		
TIMELINESS		OPERATIONALIZATION	SCORE									
T1	How long does the firm's auditor take to sign the audit report after financial year end?	The natural log of the number of calendar days from the financial year-end to the date of signing of financial report by auditors 1 = 1-1.99 2 = 2-2.99 3 = 3-3.99 4 = 4-4.99 5 = 5-5.99										
COMPARABILITY		OPERATIONALIZATION	SCORE									
C1	What is the extent explanation of accounting policy changes and implication of the changes?	1 – The changes have not been explained 2 – There were minimum explanations 3 – Notes only explain why changes occurred 4 – No explanation of reasons and the implications 5– No changes, there were detailed explanations										
C2	To what measure do the notes on accounting estimates and judgments clarify the consequences of these revisions?	1 – There are no notes on revisions 2 – Few notes explained the revisions 3 – The notes were clear/there were no revisions 4 – Notes were clear and explained implications 5 – The notes were comprehensive										

C3	What is the extent of adjustments to the prior year's financial figures, effects of policy changes or revision of the accounting estimates?	1 – There were no adjustment 2 – The notes only explained the adjustments 3 – The adjustments only affected 1 year 4 – Adjustments affected 2 years 5 – The adjustment affected over 2 years								
C4	To what degree did the firm compare the current reporting period's results to previous reporting periods?	1 – There were no comparisons 2 – Comparison was only made with the prior year 3 – 5-year comparison was made 4 – 5-year comparison and implications 5 –10-year comparisons and explanation of the implications								
C5	To what level is the firm's financial report comparable to that reported by other organizations? (In terms of explanation of events, application of accounting policies and structures	1 is least comparable and 5 is highly comparable								
C6	To what extent are financial indices and accounting ratios presented in the firm's annual financial statement?	1 – Report did not present any ratios 2 – Between 1 and 2 ratios presented 3 – Between 3 and 5 ratios were presented 4 – Between 6 and 10 ratios presented 5 – Over 10 financial ratios presented								
RELEVANCE		OPERATIONALIZATION	SCORE							
R1	To what level does the incorporation of forward-looking information assist in the creation of expected outcomes and projections?	1 – No ratios 2 – Between 1 & 2 ratios presented 3 – Between 3 and 5 ratios 4 – Between 6 and 10 ratios 5 – over 10 financial ratios								
R2	To what extent does non-financial	1 – There is no non-financial data given								

	data on company opportunities and risks enhance financial information?	<p>2 – There is minimal non-financial information, which makes it difficult to create expectations</p> <p>3 – non-financial data that's useful</p> <p>4 – non-financial data that aids in the development of expectations</p> <p>5 – non-financial data provides supplementary information that aids in the development of projections and expectation</p>								
R3	To what level is the business reliant on fair value rather than historic costs?	<p>1 – Use of historical costs only</p> <p>2 – Use of historical cost most of the times</p> <p>3 – There is balance between fair values and historical costs</p> <p>4 – Fair values mostly used</p> <p>5 – Fair values only used</p>								
R4	To what extent do the stated results inform consumers of annual reports about how the company was affected by market volatility and big transactions?	<p>1 – Results do not provide feed back</p> <p>2 – Minimal feedback on prior years</p> <p>3 – There is feed back</p> <p>4 – Feedback aids in determining how occurrences and transactions affected the business</p> <p>5 – Detailed feedback available</p>								
FAITHFUL REPRESENTATION		OPERATIONALIZATION	SCORE							
F1	To what degree are valid arguments offered in the annual report to agree with the decision for particular estimates and assumptions?	<p>1 – Only expectations were described</p> <p>2 – Expectations are general</p> <p>3 – Expectations are specifically stated</p> <p>4 – Specific explanations, explanation of formulas, etc</p> <p>5 – Arguments are in depth</p>								
F2	To what measure does the corporation base its decision accounting standards on sound	<p>1 – Unexplained changes</p> <p>2 – Minimal explanations</p>								

	arguments?	3 – The notes only explain why 4 – Explained together with the consequences 5 – There were no changes/in-depth explanation								
F3	To what measure does the company emphasize both the positive and negative events when discussing the annual results?	1 – Only in footnotes are negative incidents described 2 – Concentrate on the positive results 3 - Positive outcomes are emphasized, while no bad events are acknowledged or occurred 4 – Positive and negative events are balanced 5 – Discussed the effects of positive and negative occurrences								
F4	What is the type of the auditor’s report that is presented in the annual financial report?	1 – Adverse 2 – Disclaimer 3 – Qualified 4 – Unqualified on the firm’s financials 5 – Unqualified on both financials and the internal controls								
F5	In its annual report, how much information regarding corporate governance does it provide?	1 – Corporate governance not explained 2 – Limited information on corporate governance, not separated into subsections 3 – Corporate governance is covered in a separate section 4 – Information about company governance is given special focus 5 – Detailed explanation on corporate governance								
UNDERSTANDABILITY		OPERATIONALIZATION	SCORE							
U1	Is the financial report well-organized?	Judgmental based on: table of contents; headers; component order; summary/conclusions at the end of each subsection where 5 – most organized and 1 –								

		least organized									
U2	To what extent do the financial statement notes provide sufficient clarity?	<ul style="list-style-type: none"> 1 – There are no explanation 2 – Short and difficult to comprehend descriptions 3 – Descriptions for what took place 4 – Terms are defined and discussed 5 – Whatever that could be difficult to grasp is clarified 									
U3	To what degree does the use of tables and graphs in the financial statement clarify the information presented?	<ul style="list-style-type: none"> 1 – No tables and graphs 2 – Between 1 and 2 graphs 3 – Between 3 and 5 graphs 4 – Between 6 and 10 graphs 5 – More than 10 graphs 									
U4	How easy is it to follow and understand the statement's use of terminology and technical jargon?	<ul style="list-style-type: none"> 1 – Much of the industry's jargon not discussed 2 – A lot of jargon with few explanations 3 – The text or glossary explains the jargon 4 – There's no jargon everything is clearly explained 5 – Explanations are overly clear, there's no jargon 									
U5	What the real annual report's glossary length?	<ul style="list-style-type: none"> 1 – The glossary is not presented 2 – Glossary is not more than a single page 3 – Glossary is about a page long 4 – The glossary is 1-2 pages 5 – The glossary is over two pages 									

APPENDIX II: Qualitative Characteristics Questionnaire

I am conducting research for my PhD thesis titled ‘Board Diversity, International Financial Reporting Standards Adoption, Legal Enforcement and Accounting Quality of Listed Firms at the East African Community Securities’ Exchanges’ The information you provide will be kept in strict confidence, and the findings will be used purely for academic purpose. The study period covers the years’ 2013 – 2020. Kindly fill up the following questionnaire for each of the eight years referred above (Each year to be filled separately on its own column).

PART A: BACKGROUND INFORMATION

1) Company Name:

2) Indicate your current position in the Company (Tick as appropriate)

Chief Executive Officer { } Finance manager { } Chief Finance Officer { }

Senior Accountant { } Others (Please Indicate)

PART B: COMPARABILITY

1) To what extent do the notes about changes in accounting policies explain the implications of the change? (Tick as appropriate for each year)

ITEMS	2013	2014	2015	2016	2017	2018	2019	2020
Policy changes are not explained								
Minimum explanations								
Only explains why								
No explanation of reasons and consequences								
No changes/comprehensive explanation								

2) To what degree do the notes to accounting estimates and opinions explain the revision's implications? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Revisions not accompanied with notes								
Revisions accompanied with minimal notes								
There were no revision and notes were clear								
The notes were clear and explained implications								
The notes are comprehensive								

3) How much did the company revise previous period accounting results to account for the impact of changes in accounting policy or adjustments in accounting estimates? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Adjustments were not made								
Adjustments explained								
Adjustments were made for 1 year								
Adjustments were for a 2-year period								
Adjustments affected for more than 2 years								

4) To what level does the corporation compare the current accounting period's performance to those of earlier accounting periods? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
No comparison								
Only made comparisons to the prior year								
Five-year comparison								
5-year comparison with explanation of implications								
10-year comparison and implications								

5) To what degree does the corporation compare the current accounting period's performance to those of earlier accounting periods? (Indicate score between 1 & 5, Judgmental dependent on: the structure, explanation of events and accounting policies, indicate the number where 1 is least comparable and 5 is highly comparable)

	2013	2014	2015	2016	2017	2018	2019	2020
Score								

6) How many financial indices and ratios does the corporation publish in its annual report? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
No financial ratios								
Between 1 and 2 ratios								
Between 3 to 5 ratios reported								
Between 6 and 10 ratios								
More than 10 ratios								

PART C: RELEVANCE

1) To what degree does the appearance of forward-looking statements aid in the formation of expectations and projections about the company's future? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
There is no forward-looking data								
There is no separate subsection for forward-looking information								
Forward looking information is apart subsection								
Extensive predictions included in forward looking information								
Predictions with a lot of detail that can help you set expectations								

2) To what level can non-financial information about business possibilities and dangers complement financial data? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
There is no non-financial data given								
There is little non-financial content, which makes it difficult to create expectations								
Non-financial data that's useful								
Non-financial data that is useful in setting expectations								
Non-financial data is useful to supplement financial data when forming expectations								

3) To what level does the business rely on fair value rather than previous costs? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Only historical costs used								
Costs are mostly historical								
There is balance between fair and historical values								
Fair value is mostly used								
Use of fair values only								

4) To what extent do the stated results inform consumers of annual reports about how the company was affected by market volatility and big transactions? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
No feedback present								
There is little comment about the past and current.								
There is feedback available								
Feedback aids in comprehending how events and activities influenced the business								
Detailed feedback is available								

PART D: FAITHFUL REPRESENTATION

1) To what degree are valid arguments offered in the annual report to support the cause for particular assumptions and estimates? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Only expectations were described								
Expectations are general								
Expectations are specifically stated								
Specific explanations, explanation of formulas, etc								
Argumentation that is complete								

2) To what degree does the organization choose accounting standards based on cogent arguments? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
	3	4	5	6	7	8	9	0
Unexplained changes								
Minimal explanations								
The notes only explain why								
Explained together with the consequences								
There were no changes/in-depth explanation								

3) To what degree does the firm emphasize both the positive and negative events when discussing the annual results? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Only in footnotes are negative incidents described.								
Concentrate on the positive results								
Positive outcomes are emphasized, while no bad events are acknowledged or occurred.								
Positive and negative events are balanced								
Discussed the effects of positive and negative occurrences								

4) What is the type of the auditor's report that is presented in the annual financial report?
(Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Adverse								
Disclaimer								
Qualified								
Unqualified on the firm's financial								
Unqualified on both the firm's financials and the internal controls								

5) How much information about corporate governance does the company include in its annual report? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
No description of corporate governance								
Limited information on corporate governance, not separated into subsections								
Corporate governance is covered in a separate section								
Information about company governance is given special focus								
Detailed explanation on corporate governance								

PART E: UNDERSTANDABILITY

1) Is the financial report well-organized? (Indicate the appropriate score for each of the years Judgmental based on: table of contents; headers; component order; summary/conclusions at the end of each subsection where 5 – most organized and 1 – least organized)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Score								

2) To what extent do the financial statement notes provide sufficient clarity? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
There are no explanation.								
Short and difficult to comprehend descriptions								
Descriptions for what took place								
Terms are defined and discussed								
Whatever that could be difficult to grasp is clarified								

3) To what degree does the use of tables and graphs in the financial statement clarify the information presented? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
No tables and graphs								
Between 1 and 2 graphs								
Between 3 and 5 graphs								
Between 6 and 10 graphs								
More than 10 graphs								

4) To what extent is the statement's use of language and technical jargon easy to follow and comprehend? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
Much of the industry's jargon not discussed								
A lot of jargon with few explanations								
Jargon is explained in the text or glossary								
There's no jargon everything is clearly explained								
Explanations are overly clear, there's no jargon								

5) What really is the length of the annual report's glossary? (Tick as appropriate for each year)

ITEM	2013	2014	2015	2016	2017	2018	2019	2020
No glossary								
Glossary is not more than a single page								
Glossary is about a page long								
The glossary is 1-2 pages								
The glossary is over two pages								

APPENDIX III: IFRS Compliance Index Data Capture Form

COMPANY NAME **YEAR**

For each of the IFRS analyzed in the questionnaire, indicate a score of 1 or 0, if firm is compliant else indicate n/a if not applicable

IFRS 2: Share-based Payments			
S/No	Ref.	Disclosure Requirement	Score
1	Para. 45(a)	Has the entity provided a description of every type of share-based payment agreement that existed all through the year, along with the terms and conditions of each?	
2	Para. 45(b)	Is the number and weighted average exercise price of share options outstanding at the start of the period, forfeited during the period, exercised during the period, granted during the period, expired during the period, outstanding at the end of the period, and exercisable at the end of the period disclosed by the entity?	
3	Para. 45(c)	Did the entity report the weighted average share value at the time of exercise for share options executed during the period?	
4	Para. 45(d)	Did the entity report the range of exercise price and weighted average remaining contractual term for outstanding share options at the end of the period?	
5	Para. 46	Is any information in the financial statements that allows customers to know how the fair value of goods or services acquired, or the fair value of equity instruments granted, was calculated during the period?	
	Para. 47	Has the firm revealed the following if it has indirectly calculated the fair value of goods or services received as payment for equity instruments awarded by reference to fair value of	

		the equity securities granted?	
6	Para. 47(a)	Has the firm revealed the weighted average fair value of those share options at the time of valuation, as well as information on how the fair value of those share options was determined, for share options issued over time?	
7	Para. 47(b)	Did the firm disclose the amount and weighted average fair value of equity instruments granted during the period, as well as details on how the fair market value of the equity securities was determined?	
8	Para. 48	Has the entity measured the fair value of goods and services acquired during the duration? If so, has the entity explained how the valuation of products and services were calculated?	
	Para. 2.50	Is the following information disclosed to allow users to understand the impact of share-based payment transactions on the company's profit/loss and financial position?	
9	Para. 2.50 (a)	As a result, the total share-based payment expenditure recognized for the year was expensed because it won't be eligible for asset recognition.	
10	Para. 2.50 (b)	Transaction accounted for as equity-settled share-based payment transactions accounted for a portion of total expenses recognized for the period.	
11	Para. 2.50 (c)	For the period, the total carrying value of obligations owing to share-based payments	
12	Para. 2.50 (d)	Total intrinsic value for vested stock appreciation rights at the end of the year	
Total Score for IFRS 2			

IFRS 3: Business Combinations			
Item	Ref	Disclosure Requirement	Score
1	Para.64(a)	Has the company (as the acquirer) revealed the name and description of the merging companies or business in each substantial business combination that occurred during the period?	
2	Para.64(b)	Should the business (as the acquirer) report the acquisition date for each significant business combinations made during the period?	
3	Para.64(c)	Has the business (as the acquirer) reported the proportion of voting equity instruments purchased for each substantial business combination made during the period?	
4	Para.64(m)	Did the entity provide details of the cost of each substantial business combination conducted during the year (as the acquirer) and an explanation of the elements of that cost, together with any costs due entirely to the combination?	
5	Para.64(m)	Has the organization (as the acquirer) divulged the amount of equity issued or issuable, the fair market value of the ordinary shares issued or issuable, and the justification for determining that fair value for equity instruments issued or issuable as part of the price of business combination that occurred during the period?	
6	Para.67(e)	Did the organization (as the purchaser) disclose information of each operation the enterprise decided to divest of as a consequence of the business acquisition for each substantial business combination conducted during the period?	
7	Para.67(f)	The firm (as the acquiring company) should disclose the amount recognized at the acquisition date for each class of the acquiree's assets, liabilities, and contingent liabilities, and, except if revelation would be unworkable, the carrying amounts for each of these classes, determined in accordance with IFRSs, immediately before the combination, for each material business combination that occurred during the period (if such disclosure would not be practical, that fact should be reported together with explanations for the cases)	
8	Para.67(g)	The firm (as the purchaser) should disclose the amount of any profits and losses associated with an excess in the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities, and contingent liabilities over cost, as well as the line item in the income statement wherein the excess is recognized, for each material business combination that occurred during the period.	
9	Para.67(h)	The firm (as the purchaser) should report a description of the contributing factors to a cost that resulted in the recognizing of goodwill for each material business acquisition that occurred during the period, including an explanation of every intangible asset which was not recognized independently from goodwill	

		and a description as to why the intangible asset's fair value cannot be measured reliably.	
10	Para.67(i)	Unless disclosures would be impracticable, the enterprise (as the acquirer) shall report the acquiree's profit or loss since the acquisition date included in the acquirer's profit or loss for the period for each major business combination that occurred during the period (if such disclosure would be impracticable that fact should be disclosed together with an explanation of the case)	
11	Para.69	If the inaugural accounting for a business combination that occurred during the period was only determined provisionally, the company should publish that fact along with an explanation of why.	
12	Para.70 (a)	The merged enterprise's revenue for the period should be reported as if the purchase date for all business combinations completed during the period was the beginning of the period. If this is not possible, the information should be reported together with an explanation as to why this is the case.	
13	Para.70 (b)	The combined enterprise's profit or loss for the period should be reported as if the acquisition dates for all business combinations completed during the period was the beginning of the period. If this is not possible, the fact should be revealed along with an explanation as to why this is the case.	
14	Para.73 (a)	Any gains and losses accepted in the current accounting period that is of such a size, nature, or frequency that reporting is relevant to an understanding of the consolidated enterprise's financial results, and that relates to recognizable assets acquired or obligations or contingent liabilities presumed in a business combination that occurred in either the current or previous period should be disclosed, along with an explanation.	
15	Para.73 (b)	If the initial account for a business combination that occurred in the previous period was only provisionally decided at the end of the time period, the enterprise should report the amounts and explanations of modifications to the preliminary values recognized in the current period.	
16	Para.73 (c)	Any erroneous corrections for identifiable assets, liabilities, or contingent liabilities that the purchaser recognises during the current period, as well as changes in values ascribed to those items, should be disclosed.	
Total Score for IFRS 3			

IFRS 4: INSURANCE CONTRACTS			
Item	Ref.	Disclosure Requirement	Score
1	4.36	The insurer must include information that could identify and explain the values in its financials that are related to insurance contracts.	
	4.37	An entity must disclose the following:	
2	4.37a	Its asset, liability, revenue, and expense significant accounting for insurance contracts;	
3	4.37 b	Insurance-related assets, liabilities, income, and expense (as well as cash flows if the statement of cash flows is prepared using the direct method);	
4	4.37 c	The method indicated in paragraph 37(b) of IFRS 4 (see above) for determining the assertions that have the greatest impact on the measurement of recognized amounts.	
5	4.37 d	The impact of revisions in assumption used to assess insurance assets and liabilities, with each change having a material impact on the financial reports shown individually; and	
6	4.37 e	Changes in insurance obligations, reinsurance assets, and, if applicable, associated deferred acquisition costs are reconciled.	
7	4.38	The insurer must provide information that allows users of its accounting records to assess the type and scope of risks associated with insurance contracts.	
Total Score for IFRS 4			

IFRS 5: NON-CURRENT ASSETS HELD FOR SALE & DISCONTINUED OPERATIONS			
Item	Reference	Disclosure Requirement	Score
1	Para 33 (a)	On the face of the income statement, the company should report a single amount that includes the sum of (i) the post-tax profit or loss of discontinued operations, and (ii) the post-tax gain or loss recognized on the measurement to fair value less costs to sell or on the disposal of the assets or disposal group(s) that make up the discontinued operation.	
2	Para 33 (b)	The enterprise should identify the revenue, expenses, and pre-tax profit or loss of discontinued operations, as well as the related income tax expense and the gains or losses recognized on the measurement to fair value less costs to sell or on the disposal of the assets or disposal group(s) constituting the discontinued operation, in accordance with paragraph 33(a).	
3	Para 33 (c)	The company should disclose the net cash flows from discontinued operations' operating, investing, and financing activities.	
4	Para 34	The enterprise shall re-present the disclosure required by paragraphs 33(a), (b), and (c) for prior periods contained in the financial statements such that they pertain to all activities that have been ceased by the balance sheet date for the most recent period presented.	
5	Para 36 (a)	If a business stops classifying a component as held for sale, the component's results of operations should be reclassified and is included in revenue from continuing operations for all periods presented.	
6	Para 36 (b)	If an organization no longer classifies a part as held for sale, past period amounts should be reported as having been re-presented.	
7	Para 38	In the balance sheet, a non-current asset categorized as held for sale and assets of a disposal	

		group classified as held for sale should be presented separately from other assets.	
8	Para 38	In the balance statement, the liabilities of a disposal group categorized as held for sale should be reported separately from other liabilities.	
9	Para 38	Assets and liabilities designated as held for sale ought not be neutralized and displayed as a single total.	
10	Para 38	The principal types of assets and liabilities categorized as held for sale should be declared individually on the balance sheet or in the financial statements' notes.	
11	Para 38	Any direct equity income or expense related to a non-current asset (or disposal group) designated as held for sale should be presented separately.	
12	Para 38	An enterprise shall not reclassify or re-present balances presented in the balance sheets for earlier periods for non-current assets or assets and liabilities of disposal groups categorized as held for sale to reflect the categorization in the balance sheet for the most recent period provided.	
13	Para 41 (a)	An enterprise should include a description of a non-current asset (or disposal group) in the notes for the period in which it was either categorized as held for sale or sold (or disposal group)	
14	Para 41 (a)	An enterprise should include a summary of the events and circumstances surrounding the sale, or leading to the planned disposal, in the notes for the year in which a non-current asset (or disposal group) has been categorized as held for sale or sold.	
Total Score for IFRS 5			

IFRS 6: EXPLORATION FOR AND EVALUATION OF MINERAL RESOURCES			
Item	Reference	Disclosure Requirement	Score
1	6.15	Did the firm, for example, categorize exploration and evaluation assets as tangible or intangible based on the nature of the assets acquired and apply the classification consistently?	
2	6.17	When the technical feasibility and financial viability of extracting a mineral resource are demonstrated, has the company stopped recognizing an exploration and evaluation asset?.	
3	6.18	Is there any impairment loss on exploration and evaluation assets that the company has disclosed?	
4	6.23	Is the following information about amounts recognized in the financial statements as a result of mineral resource exploration and assessment disclosed by the entity:	
5	6.24 (a)	The recognition of exploration and evaluation assets, as well as the accounting procedures for exploration and evaluation expenditures.	
6	6.24 (b)	The total value of assets, liabilities, revenue and expense, as well as operating and investment cash flows, resulting from mineral resource exploration and appraisal.	
7	6.25	Has the entity recognized exploration and evaluation assets as a distinct asset class and made the required disclosures?	
Total Score for IFRS 6			

IFRS 7: FINANCIAL INSTRUMENT DISCLOSURES

Item	Reference	Disclosure Requirement	Score
1	Para. 7:6	Did the entity classify financial instruments into categories that were appropriate for the type of the information released and took into consideration their characteristics?	
2	Para. 7:6	Is there enough information in the entity's statement of financial status to reconcile the line items?	
3		Has the entity disclosed either in the statement of financial position or in the notes the following:	
4	Para. 7:8 (a)	Through profit or loss, financial assets are valued at fair value.	
5	Para. 7:8 (e)	Through gain or loss, financial liabilities are assessed at fair value.	
6	Para. 7:8 (f)	Financial assets are measured at amortized costs	
7	Para. 7:8 (g)	Financial obligations are valued at their amortized cost.	
8	Para. 7:8 (h)	Financial assets are evaluated at fair value using other comprehensive income.	
9	Para.22A	A corporation must describe its risk management plan for each risk category of risk exposures that it seeks to hedge and for which hedge accounting is employed.	
10	Para. 24A	The following sums relating to items identified as hedging instruments must be disclosed in a tabular style, individually by risk category for each type of hedge (fair value hedge, cash flow hedge or hedge of a net investment in a foreign operation)	
11	(a)	Hedging instruments' carrying value (financial assets separately from financial liabilities)	
12	(b)	The hedging instrument is included in this line item in the statement of financial position.	
13	(c)	For the period, the changes in fair value of the hedging instrument utilized to recognize hedge ineffectiveness.	
14	(d)	Nominal amounts, including hedging instrument quantities	

15	Para. 24B	The following sums connected to hedged items must be disclosed in a tabular style, individually by risk category for the types of hedges:	
16	(a)	The carrying amounts, the accumulated amount, and the line item incorporating the hedge for fair value hedges	
17	(b)	The changes in value of the hedged item; the balances in the cash flow hedge reserves and the foreign currency translation reserve for continuing hedges for cash flow hedges and hedges of a net investment in a foreign operation.	
18	Para. 25	An entity must declare the fair value of each class of financial assets and liabilities (see paragraph 6) in a fashion that allows the carrying amount to be compared to the fair value (with an exception being when the carrying amount is a reasonable approximation of fair value or fair value cannot be reasonably measured)	
19	Para. 26	An entity must arrange financial assets and liabilities into classes when declaring fair values, but offset them only to the extent that their carrying amounts are offset in the statement of financial condition.	
Total Score for IFRS 7			

IFRS 8: OPERATING SEGMENTS

Item	Reference	Disclosure Requirement	Score
1	Para. 51	An organization should disclose the segment revenue from sales to external clients for each reportable segment.	
2	Para. 51	For each reportable segment, an organization shall disclose segment revenue from interactions with other segments.	
3	Para. 52	An enterprise should report segment results from ongoing activities separately from segment results from discontinued operations for each reportable segment.	
4	Para. 55	For each reportable segment, the entire carrying value of segment assets shall be disclosed.	
5	Para. 56	For each reportable section, an organization must disclose segment liabilities.	
6	Para. 57	For each reportable segment, an entity should declare the total cost incurred during the period to purchase segment assets that are intended to be employed across several periods this includes: property; plant; equipment and intangible assets).	
7	Para. 58	For each reportable segment, an entity shall disclose the entire amount of expense included in the segment result for depreciation and amortization of segment assets for the period.	
8	Para. 61	An organization should provide the total amount of substantial non-cash expenses (other than depreciation and amortization) that were included in segment expense for each reportable segment.	
9	Para. 67	A reconciliation between segment revenue and revenue from external clients should be presented by an organization.	
10	Para. 67	A reconciliation between segment results from continuing operations and a comparable measure	

		of the company's operating profit or loss from continuing operations should be presented.	
11	Para. 67	A reconciliation between segment results from discontinued operations and the entity's profit or loss from discontinued operations should be presented by an organization.	
12	Para. 67	A reconciliation between segment assets and the company's assets should be shown.	
13	Para. 67	A reconciliation of segment liabilities and the company's liabilities should be shown.	
14	Para. 69	If business segments are the principal format for reporting segment data, the following information should be disclosed:	
15	Para. 69 (a)	For each geographical segment whose revenue from sales to external customers is 10% or more of total enterprise revenue from sales to all external customers, disclose segment revenue from external customers by geographical area, based on the geographic location of its customers.	
16	Para. 69 (b)	For each geographical segment whose segment assets are 10% or more of the total assets of all geographical segments, disclose the total carrying amount of segment assets, by geographical location of assets.	
17	Para. 69 (c)	For each geographical segment whose segment assets are 10% or more of the total assets of all geographical segments, disclose the total cost incurred during the period to acquire segment assets that are expected to be used for more than one period (property, plant, equipment, and intangible assets), broken down by geographical location of assets.	
18	Para. 70	If geographical segments are the primary format for reporting segment information, the following segment information should be disclosed for each business segment whose revenue from external customers is 10% or more of total entity revenue from all external customers and whose segment assets are 10% or more of total assets of all business segments:	

19	Para. 70 (a)	External customer revenue should be disclosed.	
20	Para. 70 (b)	The total carrying value of segment assets should be disclosed.	
21	Para. 70 (c)	Declare the entire cost of acquiring segment assets that are projected to be utilized throughout multiple periods during the period (e.g., property, plant, equipment, and intangible assets)	
22	Para. 75	The basis for pricing inter-segment transfers should be made public.	
23	Para. 75	Any modifications in the pricing basis for inter-segment transfers should be disclosed	
24	Para. 76	Changes in segment reporting accounting policies that have a major impact on segment information should be disclosed.	
25	Para. 76	An organization should provide a statement of the nature of the accounting policy change.	
26	Para. 76	The reasons for the change in accounting practices should be made public.	
27	Para. 76	The fact that comparative information has been restated to account for the change in accounting rules, or that it is impossible to do so, should be disclosed.	
28	Para. 81	The types of products and services offered by each reported business segment should be disclosed.	
29	Para. 81	Each stated geographical segment should have its composition disclosed.	
Total Score for IFRS 8			

IFRS 10: CONSOLIDATED FINANCIAL STATEMENTS

Item	Referenc e	Disclosure Requirement	Score
1	Para.19	A parent must prepare consolidated financial statements, which are financial statements for a group in which the parent and its subsidiaries' assets, liabilities, equity, income, expenses, and cash flow are presented using uniform accounting policies for similar transactions and events in similar circumstances.	
2	Para. 20	Consolidation of an investee begins when the investor takes control of the investee and ends when the investor loses control.	
3	Para. B86	Financial statements that are consolidated	N/A
4	B86 (a)	Combine similar items from the parent's assets, liabilities, equity, income, expenses, and cash flows: Controlling one or more entities, including those of its subsidiaries: An entity that is under the power of another.	
5	B86 (b)	Offset (remove) the carrying amount of the parent's investment in each subsidiary as well as the parent's share of the subsidiary's equity (IFRS 3 describes the process to account for goodwill).	
6	B86 (c)	Intragroup assets and liabilities, equity, income, expenses, and cash flows pertaining to transactions between group entities must all be eliminated.	
7	Para. 22	Non-controlling interests must be reported separately from the equity of the parent's owners in the consolidated statement of financial condition either direct or indirect.	
8	Para. 23	A parent's ownership interest in a subsidiary change without the parent lose of control.	
9	Para. B94	The profit or loss, as well as each component of other comprehensive income, must be attributed to the parent's owners and non-controlling interests. The company must also allocate entire comprehensive	

		income to the parent's owners and non-controlling interests, even if this results in a deficit balance for the non-controlling interests.	
10	Para. B95	If a subsidiary possesses outstanding cumulative preference shares that are classed as equity and are held by non-controlling interests, the entity's share of profit or loss is computed after correcting for dividends on such shares, whether or not distributions have been declared.	
Total Score for IFRS 10			

IFRS 11: JOINT ARRANGEMENTS			
Item	Reference	Disclosure Requirement	Score
1	Para. 20	In connection to its interest in a joint operation, a joint operator must recognize:	
2	Para. 20 (a)	Its assets, including its share of any joint assets	
3	Para. 20 (b)	Its obligations, including its part of shared obligations.	
4	Para. 20 (c)	Its earnings from the selling of its portion of the joint operation's output.	
5	Para. 20 (d)	Its share of the revenue from the sale of the output by the joint operation; and	
6	Para. 20 (e)	Its expenses, including its share of any shared expenses.	
7	Para. 21	A joint operator must account for its interest in a joint operation's assets, liabilities, revenues, and expenses in accordance with the applicable IFRSs.	
8	Para. B34	When an entity conducts a transaction with a joint operation in which it is a joint operator, such as a sale or contribution of assets, it is performing the transaction with the other parties to the joint operation, and the joint operator shall record gains and losses solely to the extent of the other parties' interests in the joint operation.	

9	Para. B35	When such transactions show a decrease in the net realizable value of the assets to be sold or donated to the joint operation, or an impairment loss on those assets, the joint operator must fully report those losses.	
10	Para. 24	Unless the company is exempted from utilizing the equity method as described in IAS 28 Investments in Associates and Joint Ventures, a joint venture must recognize its interest in a joint venture as an investment and account for that investment using the equity method.	
Total Score for IFRS 11			

IFRS 12: DISCLOSURE OF INTERESTS IN OTHER ENTITIES			
Item	Reference	Disclosure Requirement	Score
	IFRS 12.12	For each of its subsidiaries, an entity must disclose: non-controlling interests in an entity that is controlled by another entity: Equity in a subsidiary that is not attributable to a parent, either directly or indirectly. that are relevant to the reporting organization:	
1	12 (a)	The subsidiary's name.	
2	12(b)	The subsidiary's major location of business (and, if distinct from the principal place of business, its country of incorporation).	
3	12.c	The percentage of non-controlling interests' ownership interests.	
4	12(d)	If different from the proportion of ownership interests possessed, the percentage of voting rights held by non-controlling interests.	
5	12(e)	During the reporting period, the profit or loss allocated to the subsidiary's non-controlling interests.	
6	12 (f)	At the end of the reporting period, the subsidiary's non-controlling interests had accumulated.	

7	12 (g)	Financial data regarding the subsidiary, summarized.	
8	21 (a)	An entity must disclose the following information for each material joint arrangement and associate:	N/A
9	(i)	The name of the firm's associate affiliate or joint venture.	
10	(ii)	The entity's relationship in joint arrangement or associate (for example, by explaining the nature of the joint arrangement's or associate's activities and if they are strategic to the entity's activities).	
11	(iii)	The joint arrangement's or associate's major place of business (and country of incorporation, if appropriate and different from the principal place of business).	
12	(iv)	The entity's ownership interest or participating share, as well as the proportion of voting rights owned, if different (if applicable).	
	21 (b)	An entity must disclose the following information for each material joint venture and associate:	N/A
13	(i)	Whether the joint venture or associate interest is valued at fair value or utilizing the equity method.	
13	(ii)	Current assets, non-current assets, current liabilities, non-current liabilities, revenue, profit or loss from continuing operations, post-tax profit or loss from discontinued operations, other comprehensive income, and total comprehensive income are all summarized financial information about the joint venture or associate.	
Total Score for IFRS 12			

IFRS 13: FAIR VALUE MEASUREMENT

Item	Reference	Disclosure Requirement	Score
		To meet the disclosure objective, the following minimum disclosures are required for each class of assets and liabilities measured at fair value (including measurements based on fair value within the scope of this IFRS) in the statement of financial position after initial recognition: IFRS 13:93	
1	(a)	The measurement of fair values at the end of the financial period.	
2	(b)	For fair value measurements that do not recur, reasons for measurement.	
3	(c)	The level as per the hierarchy of fair values where fair values are measured and categorized either as level 1, level 2 or level 3	
4	(d)	The amounts of any transfers between Level 1 and Level 2 of the fair value hierarchy, the reasons for those transfers, and the entity's policy for determining when transfers between levels are deemed to have occurred, separately disclosing and discussing transfers into and out of each level for assets and liabilities held at the reporting date that are measured at fair value on a recurring basis.	
5	(e)	A description of the valuation technique(s) and inputs utilized in the fair value measurement, any change in the valuation techniques, and the reason(s) for making such modification, for fair value measurements classified under Level 2 and Level 3 of the fair value hierarchy (with some exceptions).	
6	(f)	Quantitative information regarding the key unobservable inputs utilized in the fair value measurement for fair value measures classified within Level 3 of the fair value hierarchy	

		(with some exceptions)	
7	Para 93	A reconciliation from the opening balances to the closing balances for recurring fair value measures classified under Level 3 of the fair value hierarchy, disclosing separately changes over the period attributable to the following:	
8	(a)	total gains or losses recognized in profit or loss for the period, as well as the profit or loss line item(s) in which such gains or losses are recognized — Separately stating the amount included in profit or loss due to changes in unrealized gains or losses linked to assets and liabilities held at the end of the reporting period, as well as the line item(s) in profit or loss where those unrealized gains or losses are recognized.	
9	(b)	net profits or losses for the period, as well as the line item(s) in other comprehensive income where those gains or losses are recognized	
10	(c)	The sales, issues, settlements and purchases (each to be separately disclosed)	
11	(d)	The amounts and justifications for any transfers into or out of Level 3 of the fair value hierarchy, as well as the entity's policy for assessing when transfers between levels are regarded to have occurred. For fair value measurements categorized within Level 3 of the fair value hierarchy, a description of the entity's valuation processes must be reported and addressed separately from transfers out of Level 3.	
12	Para 93	For fair value measurements that recur, that are categorized into Level 3 in the fair value hierarchy:	
13	(a)	a narrative description of the fair value assessment's sensitivity to changes in unobservable inputs, if changing those inputs to a different amount could result in a significantly higher or	

		lower fair value measurement If those inputs have interrelationships with other unobservable inputs utilized in the fair value assessment, the entity also describes those interrelationships and how they can exacerbate or lessen the effect of changes in the unobservable inputs on the fair value calculation.	
14	(b)	If modifying one or more of the unobservable inputs to reflect reasonably conceivable alternative assumptions will significantly change fair value, an entity must identify that fact and disclose the consequences of those changes for financial assets and financial liabilities. The entity must explain how the impact of a change to account for a reasonably plausible alternative assumption was determined. disclose how the effect of a change to reflect a reasonably possible alternative assumption was calculated	
Total Score for IFRS 13			

APPENDIX IV: Board Diversity Data Capture Form

Company:

Year:

Director Name	Date of Birth	Appointment Date	Education level	Functional Area	Gender	Nationality

APPENDIX V: Discretionary Accruals Data Capture Form

Company:

Year	Total Assets	Current Assets	Cash	Current Liabilities	Debt in Current Liabilities	Depreciation	Accounts Receivable	PPE	Revenue
2013									
2014									
2015									
2016									
2017									
2018									
2019									
2020									

APPENDIX VI: Value Relevance Data Capture Form

Company:

Year	MPS	EPS	Outstanding shares	Book value per share
2013				
2014				
2015				
2016				
2017				
2018				
2019				
2020				

APPENDIX VII: Legal Enforcement Data Capture Form

			2013	2014	2015	2016	2017	2018	2019	2020
Regulatory quality	Country	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rule of law	Country	.....	.....	.....	.....	.....	.....	.....	.....	.....

Appendix VIII: Legal Enforcement Data Summary

RULE OF LAW DATA EXTRACT								
	2013	2014	2015	2016	2017	2018	2019	2020
Country/Territory	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Kenya	-0.71	-0.42	-0.49	-0.44	-0.42	-0.41	-0.45	-0.56
Rwanda	-0.15	0.06	0.05	0.10	0.12	0.12	0.08	0.11
Tanzania	-0.47	-0.40	-0.37	-0.38	-0.45	-0.55	-0.58	-0.60
Uganda	-0.34	-0.39	-0.39	-0.25	-0.30	-0.29	-0.31	-0.33

REGULATORY QUALITY DATA EXTRACT								
	2013	2014	2015	2016	2017	2018	2019	2020
Country/Territory	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Kenya	-0.30	-0.32	-0.31	-0.30	-0.23	-0.22	-0.28	-0.44
Rwanda	0.01	0.25	0.24	0.11	0.15	0.09	0.08	0.16
Tanzania	-0.33	-0.33	-0.37	-0.44	-0.58	-0.62	-0.64	-0.66
Uganda	-0.24	-0.22	-0.26	-0.21	-0.22	-0.25	-0.37	-0.43

Source: World Governance Index, 2020

APPENDIX IX: Summary of Research Data

		FUNC	GEOG	GEN	EDUC	AGE	TEN	BDIV	RLAW	RQUAL	IFRS	QXSTCS	DICACC	VREL
1	BAMBURI 2013	0.79	0.50	0.30	0.56	0.18	0.91	0.54	-0.71	-0.30	0.70	0.67	0.23	10.35
2	BAMBURI 2014	0.82	0.50	0.28	0.57	0.18	0.98	0.55	-0.42	-0.32	0.71	0.62	0.19	10.35
3	BAMBURI 2015	0.79	0.50	0.30	0.56	0.17	0.96	0.55	-0.49	-0.31	0.74	0.61	0.18	10.35
4	BAMBURI 2016	0.79	0.50	0.30	0.43	0.20	0.95	0.53	-0.44	-0.30	0.76	0.64	0.25	10.35
5	BAMBURI 2017	0.75	0.47	0.36	0.54	0.18	0.96	0.54	-0.42	-0.23	0.77	0.62	0.17	10.35
6	BAMBURI 2018	0.76	0.49	0.38	0.54	0.20	0.99	0.56	-0.41	-0.22	0.79	0.64	0.20	10.35
7	BAMBURI 2019	0.66	0.32	0.50	0.46	0.15	0.67	0.46	-0.45	-0.28	0.82	0.68	0.27	10.35
8	BAMBURI 2020	0.71	0.28	0.50	0.50	0.19	0.69	0.48	-0.56	-0.44	0.82	0.69	-0.26	10.35
9	BARCLAYS 2013	0.57	0.00	0.41	0.49	0.19	0.50	0.36	-0.71	-0.30	0.72	0.62	-0.01	-5.25
10	BARCLAYS 2014	0.64	0.00	0.50	0.58	0.19	0.83	0.46	-0.42	-0.32	0.74	0.57	-0.03	-5.25
11	BARCLAYS 2015	0.63	0.00	0.50	0.58	0.18	0.82	0.45	-0.49	-0.31	0.75	0.57	0.08	-5.25
12	BARCLAYS 2016	0.62	0.00	0.48	0.58	0.18	0.99	0.48	-0.44	-0.30	0.77	0.57	-0.11	-5.25
13	BARCLAYS 2017	0.59	0.00	0.50	0.53	0.16	0.99	0.46	-0.42	-0.23	0.80	0.58	0.19	-5.25
14	BARCLAYS 2018	0.58	0.00	0.48	0.54	0.16	0.96	0.45	-0.41	-0.22	0.80	0.59	-0.29	-5.25
15	BARCLAYS 2019	0.58	0.00	0.48	0.54	0.16	0.84	0.43	-0.45	-0.28	0.85	0.62	0.25	-5.25
16	BARCLAYS 2020	0.56	0.17	0.40	0.56	0.17	0.71	0.43	-0.56	-0.44	0.85	0.65	-0.03	-5.25
17	BAT 2013	0.69	0.38	0.38	0.22	0.17	0.79	0.44	-0.71	-0.30	0.70	0.65	0.32	29.77
18	BAT 2014	0.67	0.35	0.44	0.20	0.19	0.78	0.44	-0.42	-0.32	0.72	0.66	0.25	29.77
19	BAT 2015	0.70	0.32	0.42	0.18	0.19	0.86	0.45	-0.49	-0.31	0.80	0.67	0.31	29.77
20	BAT 2016	0.70	0.32	0.42	0.18	0.18	0.83	0.44	-0.44	-0.30	0.82	0.67	0.26	29.77
21	BAT 2017	0.76	0.32	0.48	0.18	0.19	0.90	0.47	-0.42	-0.23	0.85	0.68	0.23	29.77
22	BAT 2018	0.78	0.30	0.50	0.17	0.19	0.85	0.46	-0.41	-0.22	0.85	0.67	0.30	29.77
23	BAT 2019	0.72	0.28	0.44	0.28	0.17	0.57	0.41	-0.45	-0.28	0.88	0.69	-0.10	29.77
24	BAT 2020	0.72	0.20	0.44	0.57	0.17	0.57	0.44	-0.56	-0.44	0.88	0.68	0.06	29.77
25	BOC 2013	0.67	0.49	0.35	0.57	0.16	0.56	0.47	-0.71	-0.30	0.73	0.64	0.10	3.91
26	BOC 2014	0.72	0.50	0.42	0.58	0.13	0.66	0.50	-0.42	-0.32	0.75	0.64	0.06	3.91

27	BOC 2015	0.71	0.50	0.40	0.56	0.12	0.60	0.48	-0.49	-0.31	0.78	0.65	0.15	3.91
28	BOC 2016	0.80	0.42	0.48	0.48	0.14	0.85	0.53	-0.44	-0.30	0.80	0.67	0.27	3.91
29	BOC 2017	0.81	0.38	0.47	0.47	0.16	0.62	0.48	-0.42	-0.23	0.83	0.67	0.07	3.91
30	BOC 2018	0.80	0.42	0.48	0.42	0.12	0.85	0.52	-0.41	-0.22	0.83	0.67	0.09	3.91
31	BOC 2019	0.75	0.38	0.47	0.38	0.08	0.67	0.45	-0.45	-0.28	0.85	0.68	0.13	3.91
32	BOC 2020	0.75	0.38	0.47	0.47	0.08	0.69	0.47	-0.56	-0.44	0.85	0.60	-0.03	3.91
33	BRITAM 2013	0.65	0.49	0.15	0.67	0.17	0.96	0.51	-0.71	-0.30	0.76	0.62	-0.07	2.43
34	BRITAM 2014	0.52	0.36	0.26	0.58	0.19	0.89	0.47	-0.42	-0.32	0.79	0.60	-0.25	2.43
35	BRITAM 2015	0.62	0.00	0.18	0.68	0.17	0.60	0.38	-0.49	-0.31	0.81	0.64	-0.25	2.43
36	BRITAM 2016	0.62	0.18	0.18	0.60	0.17	0.60	0.39	-0.44	-0.30	0.84	0.62	0.12	2.43
37	BRITAM 2017	0.63	0.28	0.38	0.58	0.16	0.89	0.48	-0.42	-0.23	0.88	0.62	0.00	2.43
38	BRITAM 2018	0.68	0.17	0.30	0.53	0.17	0.99	0.47	-0.41	-0.22	0.88	0.64	-0.06	2.43
39	BRITAM 2019	0.68	0.17	0.30	0.53	0.16	0.73	0.43	-0.45	-0.28	0.91	0.66	-0.01	2.43
40	BRITAM 2020	0.66	0.32	0.32	0.56	0.18	0.69	0.46	-0.56	-0.44	0.91	0.67	0.54	2.43
41	CARBACID 2013	0.63	0.38	0.00	0.63	0.14	0.41	0.36	-0.71	-0.30	0.73	0.53	-0.05	3.03
42	CARBACID 2014	0.72	0.32	0.00	0.72	0.15	0.69	0.43	-0.42	-0.32	0.77	0.54	-0.06	3.03
43	CARBACID 2015	0.72	0.32	0.00	0.72	0.15	0.64	0.43	-0.49	-0.31	0.80	0.57	-0.13	3.03
44	CARBACID 2016	0.72	0.32	0.00	0.72	0.15	0.59	0.42	-0.44	-0.30	0.82	0.56	0.02	3.03
45	CARBACID 2017	0.72	0.32	0.00	0.72	0.15	0.56	0.41	-0.42	-0.23	0.85	0.55	-0.01	3.03
46	CARBACID 2018	0.72	0.32	0.00	0.72	0.15	0.53	0.41	-0.41	-0.22	0.87	0.57	0.49	3.03
47	CARBACID 2019	0.64	0.32	0.32	0.80	0.16	0.98	0.54	-0.45	-0.28	0.90	0.59	-0.27	3.03
48	CARBACID 2020	0.61	0.28	0.28	0.78	0.20	1.00	0.52	-0.56	-0.44	0.90	0.61	0.03	3.03
49	CENTUM 2013	0.69	0.00	0.20	0.62	0.24	0.89	0.44	-0.71	-0.30	0.75	0.64	-0.16	1.65
50	CENTUM 2014	0.66	0.00	0.32	0.68	0.25	0.91	0.47	-0.42	-0.32	0.76	0.65	-2.18	1.65
51	CENTUM 2015	0.69	0.00	0.35	0.72	0.25	0.81	0.47	-0.49	-0.31	0.79	0.65	-0.17	1.65
52	CENTUM 2016	0.69	0.00	0.35	0.72	0.24	0.79	0.46	-0.44	-0.30	0.80	0.66	0.16	1.65
53	CENTUM 2017	0.71	0.00	0.40	0.68	0.22	0.96	0.49	-0.42	-0.23	0.82	0.67	0.04	1.65
54	CENTUM 2018	0.71	0.00	0.43	0.68	0.22	0.92	0.49	-0.41	-0.22	0.82	0.69	0.23	1.65

55	CENTUM 2019	0.70	0.00	0.48	0.72	0.23	1.00	0.52	-0.45	-0.28	0.84	0.71	-0.10	1.65
56	CENTUM 2020	0.70	0.00	0.48	0.72	0.21	0.90	0.50	-0.56	-0.44	0.85	0.71	0.00	1.65
57	CFC STANBIC 2013	0.81	0.00	0.40	0.55	0.12	0.60	0.41	-0.71	-0.30	0.68	0.63	-0.43	5.81
58	CFC STANBIC 2014	0.81	0.44	0.38	0.51	0.12	0.55	0.47	-0.42	-0.32	0.70	0.64	0.17	5.81
59	CFC STANBIC 2015	0.81	0.44	0.38	0.51	0.12	0.42	0.45	-0.49	-0.31	0.75	0.66	-0.11	5.81
60	CFC STANBIC 2016	0.80	0.42	0.32	0.58	0.10	0.39	0.44	-0.44	-0.30	0.76	0.61	0.15	5.81
61	CFC STANBIC 2017	0.77	0.35	0.44	0.67	0.11	0.47	0.47	-0.42	-0.23	0.78	0.63	-0.11	5.81
62	CFC STANBIC 2018	0.77	0.35	0.44	0.67	0.11	0.40	0.46	-0.41	-0.22	0.78	0.64	-0.20	5.81
63	CFC STANBIC 2019	0.72	0.32	0.32	0.48	0.09	0.33	0.38	-0.45	-0.28	0.82	0.66	0.22	5.81
64	CFC STANBIC 2020	0.70	0.18	0.50	0.70	0.14	0.86	0.51	-0.56	-0.44	0.83	0.69	0.18	5.81
65	CIC 2013	0.61	0.00	0.44	0.68	0.14	0.63	0.42	-0.71	-0.30	0.71	0.53	-0.05	8.93
66	CIC 2014	0.61	0.00	0.44	0.68	0.14	0.49	0.39	-0.42	-0.32	0.75	0.48	-0.43	8.93
67	CIC 2015	0.61	0.00	0.44	0.68	0.43	0.80	0.49	-0.49	-0.31	0.78	0.53	-0.28	8.93
68	CIC 2016	0.69	0.00	0.38	0.75	0.19	0.75	0.46	-0.44	-0.30	0.82	0.53	-0.16	8.93
69	CIC 2017	0.68	0.00	0.38	0.75	0.16	0.97	0.49	-0.42	-0.23	0.80	0.55	0.04	8.93
70	CIC 2018	0.68	0.00	0.38	0.75	0.16	0.86	0.47	-0.41	-0.22	0.80	0.56	-0.05	8.93
71	CIC 2019	0.45	0.00	0.24	0.69	0.14	0.68	0.37	-0.45	-0.28	0.83	0.58	0.26	8.93
72	CIC 2020	0.64	0.00	0.32	0.76	0.13	0.88	0.46	-0.56	-0.44	0.84	0.62	0.37	8.93
73	COOP 2013	0.58	0.00	0.14	0.71	0.13	0.88	0.41	-0.71	-0.30	0.73	0.60	0.01	-7.36
74	COOP 2014	0.52	0.00	0.12	0.73	0.14	0.92	0.41	-0.42	-0.32	0.75	0.61	-0.04	-7.36
75	COOP 2015	0.51	0.00	0.12	0.66	0.12	0.88	0.38	-0.49	-0.31	0.76	0.63	-0.07	-7.36
76	COOP 2016	0.43	0.00	0.19	0.74	0.11	0.84	0.39	-0.44	-0.30	0.79	0.65	0.10	-7.36
77	COOP 2017	0.51	0.00	0.15	0.72	0.09	0.57	0.34	-0.42	-0.23	0.82	0.62	-0.01	-7.36
78	COOP 2018	0.51	0.00	0.15	0.72	0.09	0.52	0.33	-0.41	-0.22	0.82	0.64	-0.04	-7.36
79	COOP 2019	0.60	0.00	0.15	0.74	0.08	0.54	0.35	-0.45	-0.28	0.85	0.67	-0.10	-7.36
80	COOP 2020	0.60	0.00	0.28	0.68	0.08	0.60	0.37	-0.56	-0.44	0.87	0.70	0.08	-7.36
81	DTB 2013	0.74	0.42	0.32	0.66	0.17	0.95	0.54	-0.71	-0.30	0.75	0.60	0.01	-7.29
82	DTB 2014	0.62	0.35	0.35	0.69	0.17	0.94	0.52	-0.42	-0.32	0.76	0.60	-0.27	-7.29

83	DTB 2015	0.58	0.32	0.32	0.70	0.16	0.91	0.50	-0.49	-0.31	0.82	0.61	-0.24	-7.29
84	DTB 2016	0.61	0.40	0.30	0.69	0.15	0.88	0.51	-0.44	-0.30	0.84	0.62	-0.11	-7.29
85	DTB 2017	0.64	0.46	0.30	0.63	0.16	0.84	0.51	-0.42	-0.23	0.87	0.64	-0.04	-7.29
86	DTB 2018	0.61	0.44	0.28	0.65	0.16	0.94	0.51	-0.41	-0.22	0.87	0.65	-0.12	-7.29
87	DTB 2019	0.56	0.38	0.38	0.59	0.14	0.66	0.45	-0.45	-0.28	0.91	0.67	0.65	-7.29
88	DTB 2020	0.51	0.28	0.28	0.68	0.15	0.81	0.45	-0.56	-0.44	0.93	0.70	-0.06	-7.29
89	EA CABLES 2013	0.53	0.22	0.22	0.72	0.24	0.58	0.42	-0.71	-0.30	0.72	0.54	-0.09	2.77
90	EA CABLES 2014	0.53	0.22	0.22	0.72	0.24	0.50	0.40	-0.42	-0.32	0.73	0.54	-0.08	2.77
91	EA CABLES 2015	0.53	0.22	0.22	0.63	0.21	0.78	0.43	-0.49	-0.31	0.75	0.55	-0.35	2.77
92	EA CABLES 2016	0.61	0.24	0.00	0.65	0.19	0.73	0.41	-0.44	-0.30	0.80	0.57	-0.45	2.77
93	EA CABLES 2017	0.61	0.24	0.00	0.65	0.19	0.63	0.39	-0.42	-0.23	0.82	0.60	-0.50	2.77
94	EA CABLES 2018	0.61	0.24	0.00	0.65	0.18	0.55	0.37	-0.41	-0.22	0.82	0.61	-1.13	2.77
95	EA CABLES 2019	0.61	0.24	0.24	0.73	0.24	0.81	0.48	-0.45	-0.28	0.83	0.62	2.47	2.77
96	EA CABLES 2020	0.61	0.24	0.24	0.73	0.19	0.68	0.45	-0.56	-0.44	0.85	0.64	0.01	2.77
97	EABL 2013	0.69	0.46	0.50	0.63	0.19	0.95	0.57	-0.71	-0.30	0.71	0.57	-0.28	11.54
98	EABL 2014	0.72	0.46	0.46	0.57	0.20	0.92	0.56	-0.42	-0.32	0.76	0.58	-0.37	11.54
99	EABL 2015	0.69	0.50	0.38	0.63	0.16	0.92	0.55	-0.49	-0.31	0.78	0.61	0.31	11.54
100	EABL 2016	0.73	0.46	0.30	0.60	0.14	0.90	0.52	-0.44	-0.30	0.80	0.62	-0.11	11.54
101	EABL 2017	0.76	0.46	0.30	0.53	0.13	0.73	0.48	-0.42	-0.23	0.83	0.63	0.03	11.54
102	EABL 2018	0.76	0.46	0.30	0.53	0.13	0.55	0.45	-0.41	-0.22	0.83	0.64	-0.27	11.54
103	EABL 2019	0.76	0.42	0.32	0.66	0.13	0.43	0.45	-0.45	-0.28	0.85	0.65	-0.51	11.54
104	EABL 2020	0.69	0.46	0.40	0.61	0.14	0.58	0.48	-0.56	-0.44	0.86	0.66	-0.01	11.54
105	EQUITY 2013	0.68	0.38	0.15	0.72	0.20	0.80	0.49	-0.71	-0.30	0.64	0.60	0.07	1.66
106	EQUITY 2014	0.64	0.46	0.13	0.62	0.19	0.90	0.49	-0.42	-0.32	0.66	0.60	-0.06	1.66
107	EQUITY 2015	0.66	0.50	0.26	0.60	0.18	0.94	0.52	-0.49	-0.31	0.69	0.64	-0.11	1.66
108	EQUITY 2016	0.49	0.44	0.35	0.67	0.14	0.89	0.50	-0.44	-0.30	0.73	0.66	0.10	1.66
109	EQUITY 2017	0.58	0.40	0.30	0.64	0.14	0.92	0.50	-0.42	-0.23	0.76	0.67	-0.35	1.66
110	EQUITY 2018	0.58	0.32	0.32	0.66	0.15	0.94	0.50	-0.41	-0.22	0.76	0.69	-0.08	1.66

111	EQUITY 2019	0.59	0.00	0.35	0.72	0.16	0.81	0.44	-0.45	-0.28	0.78	0.71	0.09	1.66
112	EQUITY 2020	0.56	0.00	0.42	0.72	0.15	0.69	0.42	-0.56	-0.44	0.79	0.73	-0.13	1.66
113	EVEREADY 2013	0.58	0.00	0.49	0.57	0.24	0.61	0.42	-0.71	-0.30	0.76	0.53	0.30	0.35
114	EVEREADY 2014	0.69	0.00	0.50	0.53	0.15	0.50	0.40	-0.42	-0.32	0.76	0.52	-0.05	0.35
115	EVEREADY 2015	0.66	0.00	0.47	0.53	0.12	0.53	0.38	-0.49	-0.31	0.76	0.53	-0.26	0.35
116	EVEREADY 2016	0.66	0.00	0.47	0.66	0.12	0.44	0.39	-0.44	-0.30	0.79	0.52	-1.44	0.35
117	EVEREADY 2017	0.61	0.00	0.44	0.67	0.10	0.41	0.37	-0.42	-0.23	0.79	0.53	1.45	0.35
118	EVEREADY 2018	0.61	0.00	0.44	0.67	0.10	0.35	0.36	-0.41	-0.22	0.79	0.55	0.00	0.35
119	EVEREADY 2019	0.64	0.00	0.48	0.56	0.11	0.33	0.35	-0.45	-0.28	0.81	0.54	-0.44	0.35
120	EVEREADY 2020	0.64	0.00	0.48	0.56	0.11	0.29	0.35	-0.56	-0.44	0.84	0.57	-0.23	0.35
121	HOME AFRIKA 2013	0.60	0.00	0.32	0.58	0.00	0.07	0.26	-0.71	-0.30	0.75	0.53	0.21	1.29
122	HOME AFRIKA 2014	0.70	0.00	0.36	0.56	0.08	0.51	0.37	-0.42	-0.32	0.76	0.53	-0.12	1.29
123	HOME AFRIKA 2015	0.74	0.00	0.30	0.56	0.09	0.52	0.37	-0.49	-0.31	0.78	0.53	-0.22	1.29
124	HOME AFRIKA 2016	0.79	0.00	0.38	0.57	0.08	0.71	0.42	-0.44	-0.30	0.81	0.56	-0.23	1.29
125	HOME AFRIKA 2017	0.69	0.00	0.41	0.57	0.08	0.84	0.43	-0.42	-0.23	0.83	0.56	-0.21	1.29
126	HOME AFRIKA 2018	0.69	0.00	0.41	0.57	0.08	0.68	0.41	-0.41	-0.22	0.84	0.58	-0.16	1.29
127	HOME AFRIKA 2019	0.63	0.00	0.38	0.38	0.03	0.59	0.33	-0.45	-0.28	0.86	0.56	0.15	1.29
128	HOME AFRIKA 2020	0.74	0.00	0.49	0.67	0.03	1.00	0.49	-0.56	-0.44	0.88	0.61	-0.28	1.29
129	HOUSING FINANCE 2013	0.61	0.24	0.00	0.69	0.15	0.55	0.38	-0.71	-0.30	0.75	0.53	0.03	3.91
130	HOUSING FINANCE 2014	0.64	0.20	0.35	0.67	0.17	0.71	0.46	-0.42	-0.32	0.78	0.58	0.06	3.91
131	HOUSING FINANCE 2015	0.70	0.18	0.32	0.66	0.16	0.70	0.45	-0.49	-0.31	0.78	0.54	0.10	3.91
132	HOUSING FINANCE 2016	0.72	0.00	0.44	0.66	0.18	0.81	0.47	-0.44	-0.30	0.81	0.57	-0.16	3.91
133	HOUSING FINANCE 2017	0.69	0.00	0.44	0.59	0.17	0.67	0.43	-0.42	-0.23	0.84	0.57	-0.09	3.91
134	HOUSING FINANCE 2018	0.69	0.00	0.44	0.59	0.16	0.57	0.41	-0.41	-0.22	0.86	0.58	-0.09	3.91
135	HOUSING FINANCE 2019	0.72	0.00	0.32	0.58	0.16	0.50	0.38	-0.45	-0.28	0.88	0.59	0.06	3.91
136	HOUSING FINANCE 2020	0.66	0.00	0.47	0.53	0.17	0.59	0.40	-0.56	-0.44	0.89	0.63	-0.52	3.91
137	JUBILEE 2013	0.56	0.38	0.00	0.75	0.13	0.54	0.39	-0.71	-0.30	0.76	0.58	-0.14	20.36
138	JUBILEE 2014	0.56	0.40	0.17	0.76	0.12	0.79	0.47	-0.42	-0.32	0.78	0.61	-0.15	20.36

139	JUBILEE 2015	0.56	0.40	0.17	0.76	0.12	0.68	0.45	-0.49	-0.31	0.81	0.62	-0.02	20.36
140	JUBILEE 2016	0.56	0.40	0.17	0.76	0.12	0.59	0.43	-0.44	-0.30	0.84	0.61	-0.10	20.36
141	JUBILEE 2017	0.64	0.44	0.20	0.72	0.10	0.49	0.43	-0.42	-0.23	0.85	0.62	-0.04	20.36
142	JUBILEE 2018	0.60	0.42	0.18	0.72	0.12	0.57	0.44	-0.41	-0.22	0.86	0.63	-0.15	20.36
143	JUBILEE 2019	0.64	0.35	0.20	0.72	0.12	0.47	0.42	-0.45	-0.28	0.88	0.67	-0.96	20.36
144	JUBILEE 2020	0.64	0.35	0.20	0.72	0.12	0.43	0.41	-0.56	-0.44	0.89	0.68	0.48	20.36
145	KCB 2013	0.81	0.00	0.28	0.51	0.21	0.94	0.46	-0.71	-0.30	0.75	0.66	0.12	-10.81
146	KCB 2014	0.79	0.00	0.36	0.49	0.21	0.87	0.45	-0.42	-0.32	0.78	0.64	-0.33	-10.81
147	KCB 2015	0.78	0.00	0.40	0.51	0.24	0.59	0.42	-0.49	-0.31	0.80	0.62	0.01	-10.81
148	KCB 2016	0.78	0.00	0.40	0.51	0.23	0.45	0.39	-0.44	-0.30	0.79	0.66	0.24	-10.81
149	KCB 2017	0.75	0.00	0.22	0.38	0.21	0.43	0.33	-0.42	-0.23	0.82	0.66	-0.03	-10.81
150	KCB 2018	0.68	0.00	0.18	0.48	0.15	0.54	0.34	-0.41	-0.22	0.84	0.69	-0.02	-10.81
151	KCB 2019	0.74	0.00	0.20	0.48	0.12	0.63	0.36	-0.45	-0.28	0.87	0.67	-0.14	-10.81
152	KCB 2020	0.64	0.00	0.30	0.51	0.14	0.79	0.40	-0.56	-0.44	0.89	0.67	0.23	-10.81
153	KENGEN 2013	0.72	0.00	0.36	0.69	0.18	0.46	0.40	-0.71	-0.30	0.66	0.60	-0.17	-0.51
154	KENGEN 2014	0.76	0.00	0.43	0.66	0.21	0.88	0.49	-0.42	-0.32	0.70	0.59	-0.43	-0.51
155	KENGEN 2015	0.72	0.00	0.43	0.67	0.19	0.87	0.48	-0.49	-0.31	0.72	0.60	0.01	-0.51
156	KENGEN 2016	0.78	0.00	0.43	0.63	0.18	0.88	0.48	-0.44	-0.30	0.76	0.60	-0.21	-0.51
157	KENGEN 2017	0.76	0.00	0.44	0.64	0.19	0.79	0.47	-0.42	-0.23	0.78	0.61	-0.07	-0.51
158	KENGEN 2018	0.76	0.00	0.46	0.69	0.16	0.64	0.45	-0.41	-0.22	0.80	0.63	-0.07	-0.51
159	KENGEN 2019	0.74	0.00	0.46	0.63	0.15	0.50	0.41	-0.45	-0.28	0.84	0.65	-0.21	-0.51
160	KENGEN 2020	0.74	0.00	0.46	0.63	0.14	0.41	0.40	-0.56	-0.44	0.86	0.65	0.00	-0.51
161	KENYA AIRWAYS 2013	0.72	0.43	0.14	0.63	0.17	0.87	0.49	-0.71	-0.30	0.73	0.56	-1.46	-0.19
162	KENYA AIRWAYS 2014	0.75	0.38	0.12	0.65	0.18	0.98	0.51	-0.42	-0.32	0.76	0.58	-0.51	-0.19
163	KENYA AIRWAYS 2015	0.78	0.30	0.22	0.58	0.19	0.93	0.50	-0.49	-0.31	0.78	0.62	-0.23	-0.19
164	KENYA AIRWAYS 2016	0.76	0.32	0.32	0.67	0.21	0.94	0.54	-0.44	-0.30	0.81	0.61	0.00	-0.19
165	KENYA AIRWAYS 2017	0.77	0.43	0.36	0.57	0.18	0.83	0.52	-0.42	-0.23	0.84	0.58	-2.63	-0.19
166	KENYA AIRWAYS 2018	0.73	0.26	0.36	0.59	0.15	0.98	0.51	-0.41	-0.22	0.82	0.59	0.04	-0.19

167	KENYA AIRWAYS 2019	0.71	0.40	0.40	0.60	0.16	0.52	0.46	-0.45	-0.28	0.84	0.62	1.95	-0.19
168	KENYA AIRWAYS 2020	0.71	0.40	0.40	0.60	0.15	0.52	0.46	-0.56	-0.44	0.85	0.64	-0.01	-0.19
169	KENYA -RE 2013	0.71	0.00	0.40	0.40	0.15	0.90	0.43	-0.71	-0.30	0.74	0.60	0.41	6.15
170	KENYA -RE 2014	0.74	0.00	0.40	0.17	0.15	0.96	0.40	-0.42	-0.32	0.76	0.61	-0.52	6.15
171	KENYA -RE 2015	0.74	0.00	0.40	0.17	0.15	0.78	0.37	-0.49	-0.31	0.79	0.60	-0.01	6.15
172	KENYA -RE 2016	0.61	0.00	0.40	0.17	0.13	0.64	0.32	-0.44	-0.30	0.80	0.60	-0.02	6.15
173	KENYA -RE 2017	0.74	0.00	0.40	0.17	0.10	0.70	0.35	-0.42	-0.23	0.81	0.61	0.12	6.15
174	KENYA -RE 2018	0.74	0.00	0.40	0.17	0.10	0.56	0.33	-0.41	-0.22	0.82	0.60	-0.04	6.15
175	KENYA -RE 2019	0.69	0.00	0.24	0.24	0.09	0.37	0.27	-0.45	-0.28	0.84	0.62	-0.17	6.15
176	KENYA -RE 2020	0.79	0.00	0.36	0.36	0.15	0.71	0.39	-0.56	-0.44	0.85	0.65	0.21	6.15
177	KPLC 2013	0.59	0.00	0.44	0.64	0.15	0.68	0.42	-0.71	-0.30	0.73	0.61	-0.16	1.68
178	KPLC 2014	0.66	0.00	0.42	0.68	0.14	0.60	0.42	-0.42	-0.32	0.77	0.63	-0.23	1.68
179	KPLC 2015	0.77	0.00	0.35	0.62	0.11	0.93	0.46	-0.49	-0.31	0.80	0.64	0.05	1.68
180	KPLC 2016	0.77	0.00	0.35	0.62	0.11	0.90	0.46	-0.44	-0.30	0.82	0.62	-0.15	1.68
181	KPLC 2017	0.75	0.00	0.22	0.53	0.20	0.94	0.44	-0.42	-0.23	0.84	0.65	-0.29	1.68
182	KPLC 2018	0.72	0.00	0.32	0.46	0.20	0.91	0.44	-0.41	-0.22	0.86	0.64	-0.69	1.68
183	KPLC 2019	0.72	0.00	0.32	0.46	0.25	0.95	0.45	-0.45	-0.28	0.89	0.66	-0.42	1.68
184	KPLC 2020	0.81	0.00	0.35	0.37	0.17	1.00	0.45	-0.56	-0.44	0.91	0.68	0.03	1.68
185	LIBERTY 2013	0.72	0.50	0.44	0.61	0.23	0.54	0.51	-0.71	-0.30	0.77	0.59	0.20	8.29
186	LIBERTY 2014	0.72	0.48	0.32	0.56	0.23	0.33	0.44	-0.42	-0.32	0.79	0.60	-0.14	8.29
187	LIBERTY 2015	0.72	0.44	0.28	0.67	0.22	0.54	0.48	-0.49	-0.31	0.83	0.56	0.04	8.29
188	LIBERTY 2016	0.72	0.50	0.28	0.67	0.17	0.68	0.50	-0.44	-0.30	0.85	0.60	-0.04	8.29
189	LIBERTY 2017	0.69	0.49	0.24	0.61	0.16	0.76	0.49	-0.42	-0.23	0.86	0.62	-0.06	8.29
190	LIBERTY 2018	0.69	0.49	0.24	0.61	0.16	0.63	0.47	-0.41	-0.22	0.86	0.64	-0.02	8.29
191	LIBERTY 2019	0.69	0.49	0.24	0.61	0.20	0.16	0.40	-0.45	-0.28	0.89	0.66	0.03	8.29
192	LIBERTY 2020	0.56	0.38	0.38	0.22	0.13	0.95	0.44	-0.56	-0.44	0.91	0.68	0.51	8.29
193	LONGHORN 2013	0.75	0.00	0.38	0.38	0.27	0.55	0.39	-0.71	-0.30	0.73	0.53	-0.04	2.28
194	LONGHORN 2014	0.72	0.00	0.32	0.56	0.25	0.64	0.42	-0.42	-0.32	0.76	0.52	-0.05	2.28

195	LONGHORN 2015	0.72	0.00	0.44	0.57	0.30	0.95	0.50	-0.49	-0.31	0.80	0.54	0.13	2.28
196	LONGHORN 2016	0.72	0.00	0.44	0.62	0.29	0.75	0.47	-0.44	-0.30	0.78	0.55	-0.73	2.28
197	LONGHORN 2017	0.75	0.00	0.38	0.53	0.31	0.61	0.43	-0.42	-0.23	0.81	0.57	0.17	2.28
198	LONGHORN 2018	0.75	0.00	0.38	0.53	0.30	0.52	0.41	-0.41	-0.22	0.82	0.58	-0.58	2.28
199	LONGHORN 2019	0.75	0.00	0.22	0.59	0.35	0.93	0.47	-0.45	-0.28	0.85	0.62	0.32	2.28
200	LONGHORN 2020	0.75	0.00	0.22	0.59	0.35	0.73	0.44	-0.56	-0.44	0.86	0.63	-0.24	2.28
201	NATION MEDIA 2013	0.72	0.47	0.38	0.63	0.15	0.97	0.55	-0.71	-0.30	0.77	0.57	0.00	35.40
202	NATION MEDIA 2014	0.72	0.47	0.38	0.63	0.15	0.88	0.54	-0.42	-0.32	0.79	0.56	-0.06	35.40
203	NATION MEDIA 2015	0.76	0.47	0.30	0.67	0.15	0.91	0.54	-0.49	-0.31	0.81	0.57	-0.05	35.40
204	NATION MEDIA 2016	0.74	0.46	0.29	0.67	0.14	0.88	0.53	-0.44	-0.30	0.83	0.59	-0.14	35.40
205	NATION MEDIA 2017	0.70	0.42	0.21	0.67	0.14	0.87	0.50	-0.42	-0.23	0.86	0.63	0.11	35.40
206	NATION MEDIA 2018	0.70	0.42	0.21	0.67	0.14	0.79	0.49	-0.41	-0.22	0.88	0.64	0.05	35.40
207	NATION MEDIA 2019	0.68	0.46	0.17	0.61	0.15	0.80	0.48	-0.45	-0.28	0.91	0.66	-0.07	35.40
208	NATION MEDIA 2020	0.72	0.41	0.24	0.61	0.17	0.99	0.52	-0.56	-0.44	0.91	0.69	-0.19	35.40
209	NATIONAL BANK 2013	0.79	0.00	0.35	0.67	0.18	0.99	0.50	-0.71	-0.30	0.75	0.52	-0.44	1.64
210	NATIONAL BANK 2014	0.79	0.00	0.35	0.67	0.18	0.85	0.47	-0.42	-0.32	0.78	0.56	-0.12	1.64
211	NATIONAL BANK 2015	0.75	0.00	0.22	0.66	0.22	0.87	0.45	-0.49	-0.31	0.81	0.58	-0.02	1.64
212	NATIONAL BANK 2016	0.74	0.00	0.20	0.67	0.21	0.93	0.46	-0.44	-0.30	0.83	0.57	0.21	1.64
213	NATIONAL BANK 2017	0.78	0.00	0.18	0.64	0.19	0.90	0.45	-0.42	-0.23	0.83	0.64	0.12	1.64
214	NATIONAL BANK 2018	0.74	0.00	0.20	0.62	0.18	0.80	0.42	-0.41	-0.22	0.86	0.68	-0.38	1.64
215	NATIONAL BANK 2019	0.69	0.00	0.24	0.57	0.15	0.88	0.42	-0.45	-0.28	0.90	0.69	0.39	1.64
216	NATIONAL BANK 2020	0.69	0.00	0.24	0.57	0.14	0.75	0.40	-0.56	-0.44	0.90	0.67	-0.11	1.64
217	NIC BANK 2013	0.74	0.00	0.17	0.40	0.25	0.66	0.37	-0.71	-0.30	0.75	0.56	0.05	4.32
218	NIC BANK 2014	0.74	0.00	0.28	0.38	0.23	0.69	0.38	-0.42	-0.32	0.79	0.60	-0.12	4.32
219	NIC BANK 2015	0.74	0.00	0.28	0.38	0.23	0.63	0.37	-0.49	-0.31	0.81	0.63	0.00	4.32
220	NIC BANK 2016	0.74	0.00	0.30	0.40	0.21	0.62	0.38	-0.44	-0.30	0.83	0.60	-0.08	4.32
221	NIC BANK 2017	0.74	0.00	0.30	0.40	0.21	0.57	0.37	-0.42	-0.23	0.85	0.63	-0.13	4.32
222	NIC BANK 2018	0.77	0.00	0.32	0.44	0.20	0.86	0.43	-0.41	-0.22	0.87	0.63	-0.07	4.32

223	NIC BANK 2019	0.77	0.00	0.34	0.41	0.19	0.71	0.40	-0.45	-0.28	0.91	0.63	1.35	4.32
224	NIC BANK 2020	0.78	0.00	0.17	0.17	0.10	1.00	0.37	-0.56	-0.44	0.92	0.68	-0.59	4.32
225	NSE 2013	0.74	0.00	0.35	0.59	0.17	0.70	0.42	-0.71	-0.30	0.74	0.55	-0.45	1.44
226	NSE 2014	0.72	0.00	0.38	0.53	0.17	0.48	0.38	-0.42	-0.32	0.75	0.56	0.23	1.44
227	NSE 2015	0.73	0.30	0.40	0.61	0.19	0.72	0.49	-0.49	-0.31	0.77	0.58	0.72	1.44
228	NSE 2016	0.69	0.38	0.38	0.63	0.18	0.60	0.47	-0.44	-0.30	0.79	0.60	-0.36	1.44
229	NSE 2017	0.68	0.40	0.30	0.61	0.18	0.45	0.44	-0.42	-0.23	0.79	0.62	0.33	1.44
230	NSE 2018	0.68	0.40	0.30	0.61	0.18	0.37	0.42	-0.41	-0.22	0.81	0.63	-0.06	1.44
231	NSE 2019	0.69	0.49	0.24	0.57	0.11	0.30	0.40	-0.45	-0.28	0.87	0.65	-0.29	1.44
232	NSE 2020	0.69	0.38	0.38	0.49	0.10	0.68	0.45	-0.56	-0.44	0.89	0.69	0.07	1.44
233	SAFARICOM 2013	0.73	0.50	0.40	0.51	0.19	0.82	0.52	-0.71	-0.30	0.60	0.46	-0.56	3.10
234	SAFARICOM 2014	0.69	0.46	0.46	0.56	0.20	0.85	0.54	-0.42	-0.32	0.61	0.58	-0.59	3.10
235	SAFARICOM 2015	0.61	0.46	0.46	0.51	0.17	0.79	0.50	-0.49	-0.31	0.64	0.62	-0.68	3.10
236	SAFARICOM 2016	0.58	0.48	0.48	0.54	0.18	0.65	0.49	-0.44	-0.30	0.67	0.59	-0.15	3.10
237	SAFARICOM 2017	0.63	0.47	0.43	0.60	0.18	0.84	0.53	-0.42	-0.23	0.70	0.66	-1.40	3.10
238	SAFARICOM 2018	0.63	0.47	0.43	0.60	0.18	0.72	0.51	-0.41	-0.22	0.72	0.67	-0.26	3.10
239	SAFARICOM 2019	0.76	0.50	0.44	0.63	0.21	0.92	0.58	-0.45	-0.28	0.75	0.71	-0.35	3.10
240	SAFARICOM 2020	0.76	0.50	0.44	0.63	0.21	0.80	0.56	-0.56	-0.44	0.76	0.67	-0.01	3.10
241	SAMEER 2013	0.61	0.28	0.00	0.61	0.23	0.73	0.41	-0.71	-0.30	0.69	0.48	-0.04	0.88
242	SAMEER 2014	0.61	0.28	0.00	0.61	0.23	0.61	0.39	-0.42	-0.32	0.72	0.58	-0.11	0.88
243	SAMEER 2015	0.61	0.28	0.00	0.61	0.26	0.52	0.38	-0.49	-0.31	0.75	0.62	-0.16	0.88
244	SAMEER 2016	0.61	0.28	0.00	0.61	0.22	0.49	0.37	-0.44	-0.30	0.77	0.60	-0.28	0.88
245	SAMEER 2017	0.59	0.20	0.44	0.69	0.22	0.85	0.50	-0.42	-0.23	0.80	0.69	0.00	0.88
246	SAMEER 2018	0.59	0.22	0.47	0.72	0.25	0.74	0.50	-0.41	-0.22	0.80	0.71	-0.68	0.88
247	SAMEER 2019	0.61	0.00	0.49	0.69	0.25	0.66	0.45	-0.45	-0.28	0.83	0.72	0.41	0.88
248	SAMEER 2020	0.61	0.00	0.49	0.70	0.24	0.57	0.44	-0.56	-0.44	0.84	0.71	-0.26	0.88
249	SANLAM 2013	0.52	0.49	0.35	0.57	0.21	0.58	0.45	-0.71	-0.30	0.74	0.57	-0.09	3.10
250	SANLAM 2014	0.61	0.50	0.30	0.56	0.22	0.84	0.50	-0.42	-0.32	0.76	0.61	0.00	3.10

251	SANLAM 2015	0.66	0.50	0.38	0.59	0.23	0.90	0.54	-0.49	-0.31	0.78	0.59	0.01	3.10
252	SANLAM 2016	0.64	0.50	0.32	0.58	0.25	0.96	0.54	-0.44	-0.30	0.80	0.58	0.08	3.10
253	SANLAM 2017	0.69	0.47	0.22	0.59	0.26	0.95	0.53	-0.42	-0.23	0.84	0.61	-0.18	3.10
254	SANLAM 2018	0.63	0.50	0.28	0.63	0.23	0.95	0.53	-0.41	-0.22	0.84	0.61	-0.43	3.10
255	SANLAM 2019	0.53	0.47	0.38	0.53	0.24	0.97	0.52	-0.45	-0.28	0.86	0.65	0.07	3.10
256	SANLAM 2020	0.54	0.42	0.48	0.64	0.23	1.00	0.55	-0.56	-0.44	0.87	0.67	0.77	3.10
257	SASINI 2013	0.50	0.22	0.22	0.75	0.19	0.87	0.46	-0.71	-0.30	0.70	0.56	-0.12	1.39
258	SASINI 2014	0.47	0.22	0.22	0.75	0.17	0.89	0.45	-0.42	-0.32	0.72	0.59	0.04	1.39
259	SASINI 2015	0.47	0.00	0.22	0.75	0.16	0.99	0.43	-0.49	-0.31	0.74	0.58	0.02	1.39
260	SASINI 2016	0.47	0.00	0.22	0.69	0.16	0.94	0.41	-0.44	-0.30	0.76	0.60	-0.06	1.39
261	SASINI 2017	0.49	0.00	0.24	0.61	0.18	0.80	0.39	-0.42	-0.23	0.78	0.61	0.02	1.39
262	SASINI 2018	0.57	0.00	0.44	0.52	0.17	0.96	0.44	-0.41	-0.22	0.78	0.64	0.05	1.39
263	SASINI 2019	0.63	0.00	0.38	0.59	0.19	0.99	0.46	-0.45	-0.28	0.81	0.63	-0.07	1.39
264	SASINI 2020	0.63	0.00	0.38	0.59	0.19	0.91	0.45	-0.56	-0.44	0.83	0.67	0.03	1.39
265	SCANGROUP 2013	0.69	0.49	0.00	0.78	0.20	0.42	0.43	-0.71	-0.30	0.59	0.51	0.18	23.67
266	SCANGROUP 2014	0.69	0.49	0.00	0.78	0.20	0.59	0.46	-0.42	-0.32	0.61	0.52	-0.13	23.67
267	SCANGROUP 2015	0.69	0.49	0.00	0.78	0.19	0.53	0.45	-0.49	-0.31	0.62	0.53	-0.06	23.67
268	SCANGROUP 2016	0.69	0.49	0.00	0.78	0.19	0.48	0.44	-0.44	-0.30	0.64	0.53	0.01	23.67
269	SCANGROUP 2017	0.72	0.49	0.20	0.74	0.20	0.70	0.51	-0.42	-0.23	0.68	0.58	0.02	23.67
270	SCANGROUP 2018	0.72	0.49	0.20	0.72	0.14	0.84	0.52	-0.41	-0.22	0.70	0.59	-0.16	23.67
271	SCANGROUP 2019	0.66	0.50	0.22	0.66	0.14	0.82	0.50	-0.45	-0.28	0.74	0.62	0.17	23.67
272	SCANGROUP 2020	0.66	0.50	0.22	0.66	0.14	0.74	0.49	-0.56	-0.44	0.75	0.67	-0.21	23.67
273	STANCHART 2013	0.77	0.49	0.35	0.57	0.12	0.53	0.47	-0.71	-0.30	0.71	0.58	0.11	3.31
274	STANCHART 2014	0.74	0.50	0.32	0.58	0.12	0.55	0.47	-0.42	-0.32	0.72	0.57	-0.08	3.31
275	STANCHART 2015	0.77	0.49	0.35	0.57	0.13	0.65	0.49	-0.49	-0.31	0.74	0.60	-0.23	3.31
276	STANCHART 2016	0.72	0.50	0.36	0.60	0.14	0.97	0.55	-0.44	-0.30	0.77	0.61	0.12	3.31
277	STANCHART 2017	0.69	0.50	0.38	0.51	0.13	0.88	0.52	-0.42	-0.23	0.81	0.64	0.03	3.31
278	STANCHART 2018	0.69	0.50	0.38	0.51	0.13	0.79	0.50	-0.41	-0.22	0.81	0.65	-0.25	3.31

279	STANCHART 2019	0.75	0.22	0.47	0.59	0.10	0.72	0.48	-0.45	-0.28	0.85	0.67	0.22	3.31
280	STANCHART 2020	0.72	0.22	0.47	0.59	0.10	0.84	0.49	-0.56	-0.44	0.86	0.70	0.10	3.31
281	STANDARD GROUP 2013	0.73	0.24	0.24	0.69	0.19	0.78	0.48	-0.71	-0.30	0.69	0.59	-0.23	0.33
282	STANDARD GROUP 2014	0.75	0.38	0.22	0.69	0.18	0.76	0.50	-0.42	-0.32	0.70	0.58	-0.13	0.33
283	STANDARD GROUP 2015	0.75	0.38	0.22	0.69	0.18	0.64	0.48	-0.49	-0.31	0.73	0.61	-0.49	0.33
284	STANDARD GROUP 2016	0.74	0.35	0.20	0.67	0.17	0.56	0.45	-0.44	-0.30	0.75	0.61	0.06	0.33
285	STANDARD GROUP 2017	0.74	0.35	0.20	0.67	0.17	0.64	0.46	-0.42	-0.23	0.77	0.64	-0.51	0.33
286	STANDARD GROUP 2018	0.72	0.32	0.32	0.66	0.18	0.78	0.50	-0.41	-0.22	0.78	0.65	-0.02	0.33
287	STANDARD GROUP 2019	0.67	0.35	0.35	0.67	0.18	0.78	0.50	-0.45	-0.28	0.81	0.67	-0.11	0.33
288	STANDARD GROUP 2020	0.57	0.35	0.35	0.67	0.20	0.81	0.49	-0.56	-0.44	0.81	0.67	-0.14	0.33
289	TOTAL 2013	0.68	0.44	0.38	0.57	0.16	0.90	0.52	-0.71	-0.30	0.59	0.57	-0.31	3.19
290	TOTAL 2014	0.63	0.47	0.47	0.50	0.17	0.69	0.49	-0.42	-0.32	0.65	0.60	-0.17	3.19
291	TOTAL 2015	0.62	0.32	0.48	0.54	0.14	0.96	0.51	-0.49	-0.31	0.71	0.59	0.28	3.19
292	TOTAL 2016	0.68	0.49	0.44	0.58	0.16	0.94	0.55	-0.44	-0.30	0.74	0.61	0.17	3.19
293	TOTAL 2017	0.70	0.50	0.32	0.66	0.14	0.42	0.46	-0.42	-0.23	0.76	0.63	0.03	3.19
294	TOTAL 2018	0.67	0.47	0.36	0.67	0.13	0.51	0.47	-0.41	-0.22	0.79	0.64	-0.19	3.19
295	TOTAL 2019	0.58	0.48	0.32	0.54	0.14	1.00	0.51	-0.45	-0.28	0.82	0.66	0.00	3.19
296	TOTAL 2020	0.58	0.48	0.32	0.54	0.15	1.00	0.51	-0.56	-0.44	0.85	0.68	-0.33	3.19
297	TPS SERENA 2013	0.68	0.42	0.00	0.76	0.18	0.88	0.49	-0.71	-0.30	0.65	0.51	-0.12	-0.05
298	TPS SERENA 2014	0.69	0.46	0.17	0.79	0.21	0.88	0.53	-0.42	-0.32	0.67	0.52	-0.30	-0.05
299	TPS SERENA 2015	0.69	0.46	0.17	0.79	0.25	0.94	0.55	-0.49	-0.31	0.68	0.53	0.13	-0.05
300	TPS SERENA 2016	0.69	0.46	0.17	0.79	0.24	0.84	0.53	-0.44	-0.30	0.71	0.53	-0.05	-0.05
301	TPS SERENA 2017	0.61	0.46	0.17	0.76	0.25	0.98	0.54	-0.42	-0.23	0.72	0.58	-0.18	-0.05
302	TPS SERENA 2018	0.58	0.49	0.15	0.75	0.27	0.97	0.54	-0.41	-0.22	0.74	0.59	-1.27	-0.05
303	TPS SERENA 2019	0.58	0.48	0.32	0.54	0.14	1.00	0.51	-0.45	-0.28	0.77	0.62	0.97	-0.05
304	TPS SERENA 2020	0.57	0.49	0.20	0.77	0.26	0.92	0.53	-0.56	-0.44	0.77	0.64	-0.05	-0.05
305	TRANSCENTURY 2013	0.78	0.00	0.22	0.59	0.22	0.41	0.37	-0.71	-0.30	0.75	0.59	0.02	0.94
306	TRANSCENTURY 2014	0.78	0.00	0.22	0.59	0.22	0.38	0.37	-0.42	-0.32	0.78	0.51	-0.01	0.94

307	TRANSCENTURY 2015	0.78	0.00	0.18	0.58	0.44	0.66	0.44	-0.49	-0.31	0.81	0.57	-0.97	0.94
308	TRANSCENTURY 2016	0.67	0.00	0.00	0.44	0.20	0.99	0.38	-0.44	-0.30	0.85	0.57	-0.36	0.94
309	TRANSCENTURY 2017	0.72	0.22	0.00	0.47	0.22	0.63	0.38	-0.42	-0.23	0.86	0.59	-0.41	0.94
310	TRANSCENTURY 2018	0.72	0.22	0.00	0.47	0.22	0.35	0.33	-0.41	-0.22	0.88	0.59	-0.52	0.94
311	TRANSCENTURY 2019	0.72	0.22	0.00	0.47	0.26	0.59	0.38	-0.45	-0.28	0.89	0.62	0.18	0.94
312	TRANSCENTURY 2020	0.78	0.28	0.28	0.28	0.20	0.47	0.38	-0.56	-0.44	0.91	0.65	-0.05	0.94
313	UNGA 2013	0.82	0.24	0.41	0.24	0.14	0.50	0.39	-0.71	-0.30	0.76	0.56	-0.08	1.80
314	UNGA 2014	0.81	0.22	0.38	0.22	0.13	0.60	0.39	-0.42	-0.32	0.46	0.55	0.09	1.80
315	UNGA 2015	0.81	0.22	0.38	0.22	0.13	0.54	0.38	-0.49	-0.31	0.72	0.58	-0.19	1.80
316	UNGA 2016	0.81	0.22	0.38	0.22	0.12	0.49	0.42	-0.44	-0.30	0.73	0.59	-0.09	1.80
317	UNGA 2017	0.81	0.22	0.38	0.22	0.13	0.54	0.38	-0.42	-0.23	0.74	0.60	-0.29	1.80
318	UNGA 2018	0.81	0.22	0.38	0.22	0.12	0.49	0.37	-0.41	-0.22	0.74	0.61	0.20	1.80
319	UNGA 2019	0.81	0.22	0.38	0.22	0.12	0.46	0.37	-0.45	-0.28	0.75	0.63	-0.05	1.80
320	UNGA 2020	0.81	0.22	0.38	0.22	0.19	0.43	0.37	-0.56	-0.44	0.76	0.65	-0.03	1.80
321	NIC UGANDA - 2013	0.66	0.47	0.00	0.59	0.20	0.22	0.36	-0.34	-0.24	0.79	0.60	0.05	0.75
322	NIC UGANDA - 2014	0.61	0.49	0.00	0.69	0.20	0.39	0.40	-0.39	-0.22	0.80	0.63	0.10	0.75
323	NIC UGANDA - 2015	0.66	0.47	0.22	0.69	0.23	0.49	0.46	-0.39	-0.26	0.81	0.63	-0.20	0.75
324	NIC UGANDA - 2016	0.61	0.49	0.24	0.69	0.24	0.42	0.45	-0.25	-0.21	0.83	0.65	0.02	0.75
325	NIC UGANDA - 2017	0.50	0.50	0.28	0.72	0.24	0.39	0.44	-0.30	-0.22	0.85	0.68	0.27	0.75
326	NIC UGANDA - 2018	0.57	0.49	0.24	0.73	0.24	0.57	0.48	-0.29	-0.25	0.86	0.71	-0.71	0.75
327	NIC UGANDA - 2019	0.57	0.49	0.24	0.73	0.23	0.48	0.46	-0.31	-0.37	0.88	0.69	0.10	0.75
328	NIC UGANDA - 2020	0.57	0.49	0.24	0.73	0.23	0.45	0.45	-0.33	-0.43	0.90	0.64	0.19	0.75
329	STANBIC UGANDA 2013	0.69	0.00	0.44	0.52	0.13	0.65	0.41	-0.34	-0.24	0.68	0.61	0.17	-6.21
330	STANBIC UGANDA 2014	0.72	0.00	0.42	0.58	0.13	0.66	0.42	-0.39	-0.22	0.80	0.62	-0.08	-6.21
331	STANBIC UGANDA 2015	0.69	0.00	0.49	0.73	0.13	0.77	0.47	-0.39	-0.26	0.80	0.63	-0.14	-6.21
332	STANBIC UGANDA 2016	0.78	0.40	0.46	0.74	0.13	0.81	0.55	-0.25	-0.21	0.82	0.66	-0.30	-6.21
333	STANBIC UGANDA 2017	0.78	0.32	0.42	0.76	0.12	0.75	0.53	-0.30	-0.22	0.89	0.67	-0.35	-6.21
334	STANBIC UGANDA 2018	0.78	0.32	0.42	0.76	0.12	0.62	0.50	-0.29	-0.25	0.91	0.68	0.17	-6.21

335	STANBIC UGANDA 2019	0.79	0.38	0.44	0.79	0.17	0.66	0.54	-0.31	-0.37	0.91	0.65	0.62	-6.21
336	STANBIC UGANDA 2020	0.63	0.15	0.49	0.58	0.18	0.76	0.46	-0.33	-0.43	0.93	0.65	-0.06	-6.21
337	UCL - 2013	0.70	0.00	0.32	0.46	0.32	0.66	0.41	-0.34	-0.24	0.71	0.59	-0.10	-0.48
338	UCL - 2014	0.75	0.00	0.28	0.60	0.25	0.74	0.44	-0.39	-0.22	0.63	0.59	-0.20	-0.48
339	UCL - 2015	0.73	0.14	0.43	0.65	0.25	0.99	0.53	-0.39	-0.26	0.65	0.61	-0.05	-0.48
340	UCL - 2016	0.82	0.18	0.42	0.58	0.36	0.77	0.52	-0.25	-0.21	0.61	0.63	0.29	-0.48
341	UCL - 2017	0.84	0.20	0.44	0.52	0.37	0.55	0.49	-0.30	-0.22	0.63	0.65	0.06	-0.48
342	UCL - 2018	0.84	0.22	0.47	0.41	0.26	0.37	0.43	-0.29	-0.25	0.65	0.66	-0.05	-0.48
343	UCL - 2019	0.84	0.22	0.47	0.41	0.35	0.55	0.47	-0.31	-0.37	0.67	0.66	-0.23	-0.48
344	UCL - 2020	0.78	0.18	0.48	0.34	0.32	0.61	0.45	-0.33	-0.43	0.69	0.67	-0.01	-0.48
345	UMEME 2013	0.65	0.41	0.00	0.69	0.14	0.48	0.40	-0.34	-0.24	0.65	0.61	0.01	1.28
346	UMEME 2014	0.66	0.50	0.00	0.69	0.13	0.55	0.42	-0.39	-0.22	0.67	0.61	-0.06	1.28
347	UMEME 2015	0.68	0.50	0.17	0.74	0.17	0.93	0.53	-0.39	-0.26	0.67	0.63	-0.12	1.28
348	UMEME 2016	0.68	0.50	0.17	0.68	0.18	0.78	0.50	-0.25	-0.21	0.71	0.66	-0.35	1.28
349	UMEME 2017	0.63	0.50	0.26	0.66	0.17	0.74	0.49	-0.30	-0.22	0.73	0.67	-0.51	1.28
350	UMEME 2018	0.74	0.48	0.32	0.64	0.22	0.67	0.51	-0.29	-0.25	0.75	0.68	-0.34	1.28
351	UMEME 2019	0.74	0.48	0.32	0.64	0.21	0.62	0.50	-0.31	-0.37	0.77	0.70	0.06	1.28
352	UMEME 2020	0.78	0.50	0.30	0.64	0.21	0.68	0.52	-0.33	-0.43	0.79	0.69	0.01	1.28
353	ACCACIA MINING 2013	0.68	0.15	0.15	0.49	0.16	0.67	0.38	-0.47	-0.33	0.68	0.61	-122.60	0.43
354	ACCACIA MINING 2014	0.68	0.15	0.15	0.49	0.16	0.45	0.35	-0.40	-0.33	0.80	0.64	-122.19	0.43
355	ACCACIA MINING 2015	0.66	0.18	0.18	0.54	0.15	0.39	0.35	-0.37	-0.37	0.80	0.62	-148.73	0.43
356	ACCACIA MINING 2016	0.66	0.18	0.18	0.54	0.14	0.32	0.34	-0.38	-0.44	0.82	0.62	-156.72	0.43
357	ACCACIA MINING 2017	0.66	0.18	0.18	0.54	0.15	0.24	0.33	-0.45	-0.58	0.91	0.67	-154.72	0.43
358	ACCACIA MINING 2018	0.41	0.00	0.24	0.49	0.13	0.44	0.29	-0.55	-0.62	0.91	0.68	-0.52	0.43
359	ACCACIA MINING 2019	0.41	0.00	0.24	0.49	0.16	0.55	0.31	-0.58	-0.64	0.93	0.71	-0.20	0.43
360	ACCACIA MINING 2020	0.50	0.00	0.00	0.38	0.19	0.58	0.27	-0.60	-0.66	0.93	0.72	0.41	0.43
361	CRDB 2013	0.72	0.15	0.38	0.28	0.14	0.83	0.42	-0.47	-0.33	0.72	0.55	0.24	3.68
362	CRDB 2014	0.76	0.15	0.28	0.28	0.15	0.73	0.39	-0.40	-0.33	0.73	0.59	0.01	3.68

363	CRDB 2015	0.76	0.14	0.36	0.26	0.14	0.71	0.39	-0.37	-0.37	0.71	0.63	0.19	3.68
364	CRDB 2016	0.76	0.23	0.32	0.32	0.16	0.83	0.44	-0.38	-0.44	0.72	0.66	0.17	3.68
365	CRDB 2017	0.76	0.30	0.38	0.30	0.19	0.93	0.48	-0.45	-0.58	0.75	0.68	-0.09	3.68
366	CRDB 2018	0.74	0.30	0.40	0.40	0.17	0.98	0.50	-0.55	-0.62	0.76	0.69	-0.44	3.68
367	CRDB 2019	0.74	0.30	0.40	0.40	0.17	0.86	0.48	-0.58	-0.64	0.77	0.70	0.38	3.68
368	CRDB 2020	0.74	0.30	0.40	0.40	0.17	0.76	0.46	-0.60	-0.66	0.77	0.71	0.00	3.68
369	DSE 2013	0.73	0.00	0.30	0.17	0.20	0.50	0.32	-0.47	-0.33	0.74	0.52	0.00	2.47
370	DSE 2014	0.72	0.23	0.12	0.12	0.17	0.73	0.35	-0.40	-0.33	0.75	0.54	-0.86	2.47
371	DSE 2015	0.66	0.32	0.42	0.00	0.14	0.79	0.39	-0.37	-0.37	0.77	0.55	0.25	2.47
372	DSE 2016	0.58	0.32	0.42	0.18	0.14	0.82	0.41	-0.38	-0.44	0.78	0.59	-0.11	2.47
373	DSE 2017	0.50	0.00	0.17	0.17	0.18	0.97	0.33	-0.45	-0.58	0.83	0.61	2.36	2.47
374	DSE 2018	0.58	0.00	0.17	0.17	0.19	0.95	0.34	-0.55	-0.62	0.83	0.60	0.03	2.47
375	DSE 2019	0.58	0.00	0.17	0.17	0.18	0.65	0.29	-0.58	-0.64	0.86	0.63	0.00	2.47
376	DSE 2020	0.38	0.00	0.22	0.38	0.19	0.92	0.35	-0.60	-0.66	0.87	0.65	0.14	2.47
377	NATIONAL MICRO FINAN 2013	0.69	0.44	0.35	0.72	0.07	0.46	0.45	-0.47	-0.33	0.55	0.58	-0.05	4.00
378	NATIONAL MICRO FINAN 2014	0.69	0.44	0.35	0.72	0.07	0.35	0.44	-0.40	-0.33	0.60	0.59	-0.20	4.00
379	NATIONAL MICRO FINAN 2015	0.72	0.44	0.35	0.72	0.07	0.57	0.48	-0.37	-0.37	0.65	0.63	0.13	4.00
380	NATIONAL MICRO FINAN 2016	0.72	0.44	0.35	0.72	0.06	0.47	0.46	-0.38	-0.44	0.70	0.65	0.01	4.00
381	NATIONAL MICRO FINAN 2017	0.66	0.42	0.32	0.74	0.10	0.54	0.46	-0.45	-0.58	0.75	0.67	-0.47	4.00
382	NATIONAL MICRO FINAN 2018	0.66	0.43	0.36	0.76	0.09	0.77	0.51	-0.55	-0.62	0.78	0.68	0.15	4.00
383	NATIONAL MICRO FINAN 2019	0.61	0.24	0.41	0.57	0.10	0.96	0.48	-0.58	-0.64	0.83	0.70	0.35	4.00
384	NATIONAL MICRO FINAN 2020	0.64	0.32	0.42	0.70	0.11	0.70	0.48	-0.60	-0.66	0.86	0.71	0.03	4.00
385	TANGA CEMENT 2013	0.76	0.50	0.28	0.68	0.21	1.00	0.57	-0.47	-0.33	0.74	0.57	-0.06	2.28

386	TANGA CEMENT 2014	0.72	0.50	0.22	0.53	0.20	0.76	0.49	-0.40	-0.33	0.78	0.59	-0.13	2.28
387	TANGA CEMENT 2015	0.72	0.47	0.00	0.59	0.19	0.51	0.41	-0.37	-0.37	0.82	0.61	-0.12	2.28
388	TANGA CEMENT 2016	0.72	0.50	0.00	0.53	0.17	0.47	0.40	-0.38	-0.44	0.83	0.63	-0.08	2.28
389	TANGA CEMENT 2017	0.72	0.48	0.00	0.64	0.17	0.43	0.41	-0.45	-0.58	0.85	0.66	-0.40	2.28
390	TANGA CEMENT 2018	0.72	0.48	0.00	0.64	0.17	0.43	0.41	-0.55	-0.62	0.87	0.64	-0.38	2.28
391	TANGA CEMENT 2019	0.72	0.48	0.00	0.64	0.22	0.56	0.44	-0.58	-0.64	0.90	0.67	-0.43	2.28
392	TANGA CEMENT 2020	0.72	0.49	0.00	0.57	0.17	0.29	0.37	-0.60	-0.66	0.90	0.68	0.00	2.28
393	PRECISION AIR 2013	0.61	0.24	0.41	0.24	0.19	0.97	0.45	-0.47	-0.33	0.61	0.54	-1.31	-0.08
394	PRECISION AIR 2014	0.69	0.22	0.38	0.41	0.26	0.94	0.48	-0.40	-0.33	0.64	0.55	-0.74	-0.08
395	PRECISION AIR 2015	0.73	0.24	0.41	0.45	0.28	0.98	0.52	-0.37	-0.37	0.67	0.57	0.45	-0.08
396	PRECISION AIR 2016	0.75	0.22	0.38	0.41	0.26	0.95	0.49	-0.38	-0.44	0.70	0.55	-2.08	-0.08
397	PRECISION AIR 2017	0.72	0.38	0.38	0.41	0.24	0.99	0.52	-0.45	-0.58	0.73	0.56	-13.19	-0.08
398	PRECISION AIR 2018	0.68	0.30	0.40	0.60	0.22	0.99	0.53	-0.55	-0.62	0.75	0.59	-0.99	-0.08
399	PRECISION AIR 2019	0.68	0.30	0.40	0.60	0.30	0.95	0.54	-0.58	-0.64	0.76	0.62	-1.32	-0.08
400	PRECISION AIR 2020	0.62	0.20	0.44	0.59	0.22	0.95	0.50	-0.60	-0.66	0.76	0.64	-0.39	-0.08
401	BOK 2013	0.69	0.35	0.44	0.37	0.16	0.42	0.41	-0.15	0.01	0.73	0.65	-0.13	-2.38
402	BOK 2014	0.66	0.38	0.38	0.41	0.17	0.62	0.43	0.06	0.25	0.76	0.66	-0.04	-2.38
403	BOK 2015	0.61	0.41	0.41	0.24	0.20	0.80	0.45	0.05	0.24	0.78	0.69	0.07	-2.38
404	BOK 2016	0.59	0.38	0.47	0.41	0.19	0.70	0.46	0.10	0.11	0.81	0.70	0.10	-2.38
405	BOK 2017	0.61	0.28	0.50	0.50	0.17	0.51	0.43	0.12	0.15	0.84	0.71	0.06	-2.38
406	BOK 2018	0.74	0.20	0.49	0.49	0.16	0.59	0.45	0.12	0.09	0.82	0.72	-0.01	-2.38
407	BOK 2019	0.74	0.20	0.49	0.49	0.16	0.59	0.45	0.08	0.08	0.84	0.74	0.10	-2.38
408	BOK 2020	0.64	0.32	0.48	0.56	0.16	0.59	0.46	0.11	0.16	0.84	0.75	-0.18	-2.38
409	I&M 2013	0.67	0.44	0.00	0.61	0.22	0.86	0.47	-0.15	0.01	0.54	0.50	-0.02	8.44
410	I&M 2014	0.73	0.49	0.00	0.57	0.33	0.77	0.48	0.06	0.25	0.66	0.57	-0.05	8.44
411	I&M 2015	0.69	0.49	0.00	0.61	0.27	0.89	0.49	0.05	0.24	0.66	0.59	-0.03	8.44
412	I&M 2016	0.75	0.47	0.00	0.59	0.28	0.92	0.50	0.10	0.11	0.66	0.59	-0.17	8.44
413	I&M 2017	0.80	0.48	0.18	0.58	0.28	0.93	0.54	0.12	0.15	0.67	0.64	-0.13	8.44

414	I&M 2018	0.81	0.50	0.15	0.68	0.28	0.99	0.57	0.12	0.09	0.69	0.65	-0.05	8.44
415	I&M 2019	0.78	0.50	0.28	0.68	0.26	0.84	0.56	0.08	0.08	0.70	0.68	0.08	8.44
416	I&M 2020	0.76	0.50	0.26	0.57	0.26	0.85	0.53	0.11	0.16	0.70	0.69	0.30	8.44
417	BRALIRWA 2013	0.61	0.44	0.28	0.61	0.23	0.75	0.49	-0.15	0.01	0.71	0.63	-0.47	13.18
418	BRALIRWA 2014	0.56	0.48	0.32	0.56	0.26	0.81	0.50	0.06	0.25	0.76	0.65	-0.39	13.18
419	BRALIRWA 2015	0.50	0.44	0.28	0.50	0.24	0.85	0.47	0.05	0.24	0.78	0.66	-0.25	13.18
420	BRALIRWA 2016	0.44	0.50	0.28	0.44	0.18	0.99	0.47	0.10	0.11	0.80	0.64	-0.14	13.18
421	BRALIRWA 2017	0.44	0.50	0.28	0.44	0.06	0.99	0.45	0.12	0.15	0.83	0.65	-0.28	13.18
422	BRALIRWA 2018	0.49	0.49	0.24	0.49	0.05	0.97	0.46	0.12	0.09	0.83	0.67	-0.07	13.18
423	BRALIRWA 2019	0.50	0.47	0.22	0.50	0.05	0.97	0.45	0.08	0.08	0.85	0.70	-0.31	13.18
424	BRALIRWA 2020	0.49	0.49	0.24	0.49	0.03	0.96	0.45	0.11	0.16	0.85	0.71	-0.08	13.18

Source: Research Data, 2022

APPENDIX X: List of EAC Listed Firms as at 31st December 2019

NSE					
1	TPS Serena	23	BAT	45	Sanlam Kenya
2	Nation Media	24	Athi River Mining Cement	46	Standard Chartered
3	Uchumi Supermarkets	25	Eaagads	47	NIC Bank
4	WPP ScanGroup	26	I&M Holdings Ltd	48	Housing Finance
5	Standard Group	27	Deacons (EA)	49	National Bank
6	Rea Vipingo	28	Hutchings Biermer	50	Jubilee Insurance
7	Sasini Tea	29	Nairobi Business Ventures	51	Cooperative Bank
8	Limuru Tea	30	Britam Holdings	52	Barclays Bank
9	Sameer Africa	31	Home Africa	53	Kenya Re Insurance
10	KenolKobil	32	NSE	54	Stanbic Holdings
11	Kenya Airways	33	Flame Tree Group Holdings	55	Williamson Tea
12	Kakuzi	34	Marshalls EA Ltd	56	Unga Group
13	East Africa Breweries	35	Safaricom Limited	57	B.O.C Kenya
14	Total Kenya	36	Centum Investments	58	Kapchorua Tea
15	Kenya Power	37	Mumias Sugar	59	Atlas African Industries
16	Kengen	38	CIC Insurance	60	Express Kenya
17	EA Cables	39	Diamond Trust Bank	61	Longhorn Publishers
18	Crown Paints	40	Kenya Commercial Bank	62	Umeme Ltd*
19	East African Portland	41	Equity Group Holdings	63	Liberty Kenya Holdings
20	Carbacid Investments	42	Eveready	64	Kurwitu Ventures Ltd
21	Trans-century Ltd	43	Olympia Capital	65	A. Baumann & Co.
22	Bamburi Cement	44	Car and General	66	Kenya Orchards

Source: www.nse.co.ke

*Cross listed firms

APPENDIX IX: Contd'

DSE			
1	Acacia Mining	14	Swala Oil and Gas
2	CRDB Bank	15	Swissport
3	DAR Commercial Bank	16	Tanzania Breweries
4	East African Breweries*	17	Tanzania Cigarette
5	Jubilee Holdings*	18	Tanga Cement Company
6	Kenya Airways*	19	Tanzania Oxygen
7	Kenya Commercial Bank*	20	Tanzania Portland Cement
8	Maendeleo Bank Plc	21	Tatepa Tea Pack
9	MCB	22	Uchumi Supermarkets*
10	Mkombozi Commercial Bank	23	Yetu
11	National Micro-finance Bank	24	Mucoba
12	Nation Media Group*	25	DSE
13	Precision Air Services		

Source: www.des.co.tz

USE			
1	BAT Uganda	9	KCB Uganda*
2	Bank of Baroda	10	NIC*
3	Centum Investment*	11	Nation Media Group*
4	Development Finance	12	New Vision Print
5	East African Breweries*	13	Stanbic Bank UG
6	Equity Bank*	14	Uchumi Supermarkets*
7	Jubilee Holdings*	15	Uganda Clays
8	Kenya Airways*	16	Umeme

Source: www.use.or.ug

RSE	
1	Bank of Kigali
2	Bralirwa
3	Nation Media Group*
4	KCB Rwanda*
5	Uchumi Rwanda*
6	Equity Bank Rwanda*

Source: www.rse.rw

* Cross listed firms