

UNIVERSITY OF KWAZULU-NATAL



**College of Law and Management Studies
School of Accounting, Economics and Finance**

Investor Protection, Auditor Quality and Financial Reporting Quality in the Sub-Saharan Africa (SSA)

By

Isaac Marfo Oduro

(Student Number: 216076178)

A thesis submitted in fulfillment of the requirements for
Doctor of Philosophy (PhD) in Accounting

Supervisors

Prof. Mabutho Sibanda

Dr Samuel Kwaku Agyei

2020

DECLARATION

I, Isaac Marfo Oduro, declare the following:

1. The research reported in this thesis, except where otherwise indicated, is my original research;
2. This thesis has not been submitted for any degree or examination at any other university;
3. This thesis does not contain other individuals' data, pictures, graphs or other types of information, unless specifically acknowledged as being sourced from other persons;
4. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then –
 - a) their words have been re-written, but the general information attributed to them has been referenced;
 - b) where their exact words have been used, then their writing has been placed inside quotation marks and referenced;
5. Where I have reproduced a publication of which I am author, co-author or editor, I have indicated in detail which part of the publication was written by myself alone and have fully referenced such publication; and
6. This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged. In addition, details of the source are given in the thesis and in the references section.

Signature:

Date: **5th January, 2021**

Student: Isaac Marfo Oduro

SUPERVISORS:

Signature.....

Date: **5th January, 2021**

Professor Mabutho Sibanda

Signature:

Date: **5th January, 2021**

Dr Samuel Kwaku Agyei

LANGUAGE EDITING CERTIFICATE



One Stop Solution
24 Firenze Gardens
Warbler Road
Cotswold Ext
Port Elizabeth
6045
www.onestopsolution.co.za

TO WHOM IT MAY CONCERN

I, Christelle van der Colff, declare that I have proofread and edited the language (spelling, grammar, punctuation, consistency) of the dissertation by:

Isaac Marfo Oduro (216076178)

entitled:

Investor Protection, Auditor Quality and Financial Reporting Quality in the Sub-Saharan Africa (SSA)

A thesis submitted in fulfillment of the requirements for Doctor of Philosophy (PhD) in Accounting at the University of KwaZulu-Natal.

I cannot guarantee that the changes that I have suggested have been implemented nor do I take responsibility for any other changes or additions that may have been made subsequently.

Any other queries related to the language editing of this dissertation may be directed to me at 076 481 8341.

Dated at Port Elizabeth on 20 December 2020



Christelle van der Colff

DEDICATION

To my parents

Mr Samuel Yaw Abu (late) and Ms Adwoa Nyamekye
for their life-long support, belief, love and encouragement

To my wife

Mrs Yaa Gyamfuaa Marfo-Oduro
for your steadfastness, belief and absolute dedication to this journey

To my children

Nhyira Asantewaa Marfo, Esmond Oduro-Marfo and Laurene Gyamfuaa Marfo
for being so incredible and the source of so much love and joy

ACKNOWLEDGEMENTS

I give thanks to the Almighty God for His grace, guidance, protection and blessings that take me through life and keeps me moving.

The completion of this study would not have been possible without the support I received from various distinguished individuals and institutions.

I would like to express my profound appreciation to my supervisors, Professor Mabutho Sibanda and Doctor Samuel Kwaku Agyei, whose encouragement, knowledge and generous support helped guide my work in a way that was pivotal to my growth as a scholar. Their mentorship and encouragement inspired me to pursue my research with confidence. Their timeliness in addressing my concerns propelled me and facilitated my work despite my initial frustrations.

My heartfelt appreciation also goes to the following people, without whom I cannot imagine how this work would have been successful: Yaa Gyamfuaa Marfo Oduro, Emmanuel Nsobila, Beatrice Tagborloh, Yaw Adu Achiaw, Nhyira Afia Asantewaa Marfo, Esmond Oduro-Marfo, and Laurene Afia Gyamfuaa Marfo. In addition, I must not fail to acknowledge the support, encouragement and goodwill of the following distinguished individuals: Professor Emmanuel James Flolu, Doctor Emmanuel Oheneba Agyenim-Boateng, Reverend Father Professor Anthony Afful-Broni and Alex Coffie.

Special thanks also go to the staff at the University of Education, Winneba Internal Audit Office, especially those in the College of Technology Education, Kumasi (now Akyem Poku College), Appiah-Minka University for Skills Training and Entrepreneurial Development) for contributing to making my work easier for me to pursue this study.

I give special profound thanks to Doctor Emmanuel Okofo-Dartey and Doctor Haruna Maama for their immeasurable logistical and intellectual contributions towards the enrichment of this research study.

Finally, special thanks go to Doctor Bomi Cyril, Seshni Naidoo and Professor Josue Mbonigaba for their various logistical support and motivation towards the enrichment of this research study. To everyone who helped me in one way or the other, I thank you.

ABSTRACT

This study investigated the moderating role of Investor Protection (IP) in the relationship between auditor quality and financial reporting quality (FRQ) in sub-Saharan Africa (SSA). It also established the relevance of firms' reliance on professional management and board efficacy on FRQ of listed firms in SSA. The study proxied IP by the strength of minority interest protection, regulation of stock exchange and legal right index. FRQ was measured by Accounting Conservatism (AC), Accrual Quality (AQ), Discretionary Accrual (DA) and aggregate FRQ index (AFRQI). Using the System Generalised Method of Moments estimation technique on data from 3597 firm-year observations across 13 stock exchanges in SSA from 2007 to 2017, the study found the strength of a country's IP to have a positive and significant influence on firms' reliance on professional management and board efficacy which also exhibit a positive and significant relationship with FRQ. The results also depict that the IP index has a significant positive impact on all FRQ indicators, except for AC where a negative and significant impact of IP was observed. Meanwhile, IP components such as minority interest protection and regulation of stock exchange depicted a negative and statistically significant relationship with the FRQ of firms, indicating that individual IP components do not achieve improved FRQ in SSA. The study further found that on all the dimensions of FRQ, auditor quality exhibited a significant positive impact only when IP variables are controlled. The result showed that the coefficient of IP and auditor quality is positive and statistically significant, suggesting that IP significantly influences the relationship between auditor quality and FRQ. The results imply that policies aimed at improving the quality of firms' financial reports in SSA must consider facilitating the engagement of professional management and ensuring board efficacy. SSA countries may need holistic strengthening of the IP environment to enhance management quality, board efficacy, auditor quality and FRQ. The study confirms the Upper Echelon and Institutional theories in the SSA context.

KEYWORDS: Investor Protection, Auditor Quality, Management Quality, Reliance on Professional Management, Board Efficacy, Financial Reporting Quality, Sub-Saharan Africa

TABLE OF CONTENTS

DECLARATION	I
LANGUAGE EDITING CERTIFICATE	II
DEDICATION	III
ACKNOWLEDGEMENTS	IV
ABSTRACT	V
LIST OF ACRONYMS	XII
CHAPTER ONE	1
OVERVIEW OF THE STUDY	1
1. INTRODUCTION	1
1.1 BACKGROUND OF THE STUDY	2
1.2 STATEMENT OF THE RESEARCH PROBLEM	9
1.3 GENERAL AND SPECIFIC OBJECTIVES OF THE STUDY	13
1.3.1 THE GENERAL OBJECTIVE OF THE STUDY	13
1.3.2 SPECIFIC OBJECTIVES OF THE STUDY	14
1.4 RESEARCH QUESTIONS OF THE STUDY	14
1.5 SIGNIFICANCE AND CONTRIBUTIONS OF THE STUDY	14
1.6 SCOPE OF AND LIMITATION TO THE STUDY	16
1.7 ORGANISATION OF CHAPTERS	16
1.8 CHAPTER SUMMARY	17
CHAPTER TWO	19
LITERATURE REVIEW	19
2. INTRODUCTION	19
2.1 THEORETICAL LITERATURE	19
2.2.1 THE PRINCIPAL-AGENCY THEORY	20
2.2.2 INSTITUTIONAL THEORY	24
2.2.3 UPPER ECHELON THEORY	28
2.2 EMPIRICAL LITERATURE REVIEW	30

2.2.1	EMPIRICAL MEASURE OF FRQ.....	30
2.2.2	MANAGEMENT QUALITY (MGTQ) AND FRQ	46
2.2.3	INVESTOR PROTECTION (IP) AND MGTQ.....	56
2.2.4	AUDITOR QUALITY (AUDQ) AND FRQ	62
2.2.5	INVESTOR PROTECTION (IP) AND FRQ.....	73
2.2.6	THE INTERACTIVE EFFECT OF IP AND AUDQ ON FRQ.....	78
2.2.7	OTHER DETERMINANTS OF FRQ	81
2.3	CHAPTER SUMMARY	87
CHAPTER THREE		89
METHODOLOGY OF THE STUDY		89
3.	INTRODUCTION.....	89
3.1	RESEARCH PARADIGM	90
3.2	SAMPLING TECHNIQUES	91
3.3	ANALYTICAL FRAMEWORK AND ESTIMATION TECHNIQUES	92
3.3.1	DYNAMIC PANEL FRAMEWORK.....	93
3.4	METHODOLOGY ON THE RELATIONSHIP BETWEEN MGTQ AND FRQ	95
3.4.1	SAMPLE SELECTION	96
3.4.2	DATA.....	98
3.4.3	MEASUREMENT OF VARIABLES	98
3.4.5	EMPIRICAL ESTIMATION MODEL.....	101
3.5	METHODOLOGY ON IP AND MGTQ.....	102
3.5.1	STUDY SAMPLE SELECTION	102
3.5.2	DATA.....	104
3.5.3	MEASUREMENT OF VARIABLES	104
3.5.4	EMPIRICAL MODEL ESTIMATION.....	105
3.6	METHODOLOGY ON THE INTERACTIVE EFFECT OF IP AND AUDQ ON FRQ	107
3.6.1	SAMPLE SELECTION.....	107
3.6.2	DATA.....	109
3.6.3	MEASUREMENT OF VARIABLES	110
3.6.5	ANALYTICAL FRAMEWORK AND EMPIRICAL MODEL	113
3.7	PRE-ESTIMATION TECHNIQUES	118
3.7.1	NORMALITY TEST	118
3.7.2	MULTICOLLINEARITY TEST.....	118

3.7.3	TEST OF STATIONARITY: UNIT ROOT TEST	118
3.8	POST-ESTIMATION TECHNIQUES	119
3.9	CHAPTER SUMMARY	120
CHAPTER FOUR		121
DATA PRESENTATION, ANALYSIS AND DISCUSSION		121
4.	INTRODUCTION.....	121
4.1	MANAGEMENT QUALITY (MGTQ) AND FRQ IN SSA.....	121
4.1.1	DESCRIPTIVE STATISTICS.....	122
4.1.2	MULTICOLLINEARITY TEST.....	124
4.1.3	UNIT ROOT TEST	126
4.1.4	RELATIONSHIP BETWEEN MGTQ AND FRQ.....	127
4.2	INVESTMENT PROTECTION (IP) AND MGTQ IN SSA	134
4.2.1	DESCRIPTIVE STATISTICS.....	134
4.2.2	MULTICOLLINEARITY TEST	136
4.2.3	UNIT ROOT TEST.....	139
4.2.4	THE RELATIONSHIP BETWEEN IP AND PROMGT.....	140
4.2.5	THE RELATIONSHIP BETWEEN IP AND BODEFF	145
4.3	AUDIT QUALITY (AUDQ) AND FRQ IN SSA.....	151
4.3.1	DESCRIPTIVE STATISTICS.....	152
4.3.2	CORRELATION ANALYSIS	154
4.3.3	UNIT ROOT TEST.....	157
4.3.4	THE RELATIONSHIP BETWEEN AUDQ AND FRQ.....	157
4.4	INVESTOR PROTECTION (IP), AUDQ AND FRQ IN SSA.....	165
4.4.1	DESCRIPTIVE STATISTICS.....	165
4.4.2	CORRELATION ANALYSIS	167
4.4.3	PANEL UNIT ROOT TEST.....	170
4.4.4	IMPACT OF MININT, REGSE AND LRI ON AC OF SSA FIRMS.....	171
4.4.5	IMPACT OF MININT, REGSE, AND LRI ON AQ OF SSA FIRMS	176
4.4.6	IMPACT OF MININT, REGSE AND LRI ON DA OF SSA FIRMS	179
4.4.7	THE EFFECT OF MININT, REGSE AND LRI ON AGGREGATE FRQ INDEX IN SSA.....	183
4.4.8:	THE RELATIONSHIP BETWEEN IP AND FRQ IN SSA	187
4.4.9:	THE INTERACTIVE EFFECT OF IP AND AUDQ ON FRQ IN SSA.....	191
4.5	SUMMARY AND CONCLUSION	195

CHAPTER FIVE	198
SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS	198
5. INTRODUCTION.....	198
5.1 SUMMARY OF THE STUDY	198
5.2 KEY FINDINGS	199
5.3 CONCLUSION.....	204
5.4 RECOMMENDATIONS	205
5.5 POLICY IMPLICATIONS	206
5.6 LIMITATIONS TO THE STUDY	206
5.7 AREAS FOR FURTHER RESEARCH EFFECTS	207
REFERENCES.....	209
APPENDICES.	236
APPENDIX A: ETHICAL CLEARANCE LETTER.....	236
APPENDIX B: TURNITIN SIMILARITY REPORT	237
APPENDIX C: SUBMISSION REQUIREMENTS FOR EXAMINATION.....	238

LIST OF TABLES

TABLE 3.1: COUNTRIES IN THE SUB-SAHARAN AFRICAN REGION.....	96
TABLE 3.2: SAMPLE COUNTRIES, STOCK MARKET AND NUMBER OF FIRMS	97
TABLE 3.3: DESCRIPTION OF VARIABLES – REGRESSION EQUATION (35).....	101
TABLE 3.4: COUNTRIES IN THE SUB-SAHARAN AFRICAN REGION	103
TABLE 3.5: SAMPLE COUNTRIES FOR IP AND MGTQ	103
TABLE 3.6: INVESTOR PROTECTION (IP) VARIABLES	105
TABLE 3.7: DESCRIPTION OF VARIABLES AND THEIR EXPECTED SIGNS ON EQUATION (36) AND (37)	106
TABLE 3.8: COUNTRIES IN THE SUB-SAHARAN AFRICAN REGION	108
TABLE 3.9: SAMPLE COUNTRIES, STOCK MARKET AND NUMBER OF FIRMS	109
TABLE 3.10: INVESTOR PROTECTION (IP) VARIABLES.....	110
TABLE 4.1: DESCRIPTIVE STATISTICS	122
TABLE 4.2: CORRELATION MATRIX	125
TABLE 4.3: UNIT ROOT TEST RESULTS	126
TABLE 4.4: REGRESSION RESULTS OF MGTQ AND FRQ	127
TABLE 4.5: DESCRIPTIVE STATISTICS	134
TABLE 4.6: CORRELATION MATRIX.....	138
TABLE 4.7: UNIT ROOT TEST.....	139
TABLE 4.8: REGRESSION RESULTS OF IP AND PROMGT	140
TABLE 4.9: REGRESSION RESULTS OF IP AND BOARD EFFICIENCY	145
TABLE 4.10: DESCRIPTIVE STATISTICS	152
TABLE 4.11: CORRELATION MATRIX	156
TABLE 4.12: UNIT ROOT TEST	157
TABLE 4.13: REGRESSION RESULTS OF AUDQ AND FRQ.....	158
TABLE 4.14: DESCRIPTIVE STATISTICS	165
TABLE 4.15: CORRELATION MATRIX.....	169
TABLE 4.16: PANEL UNIT ROOT TEST	170
TABLE 4.17: REGRESSION RESULTS ON THE IMPACT OF MININT, REGSE AND LRI ON AC	171
TABLE 4.18: REGRESSION RESULTS ON THE IMPACT OF MININT, REGSE AND LRI ON AQ	176
TABLE 4.19: REGRESSION RESULTS ON THE IMPACT OF MININT, REGSE AND LRI ON DA.....	180

TABLE 4.20: REGRESSION RESULTS ON THE IMPACT OF MININT, REGSE AND LRI ON AFRQ183

TABLE 4.21: REGRESSION RESULTS ON THE EFFECT OF IP ON FRQ 188

TABLE 4.22: REGRESSION RESULTS ON THE INTERACTIVE EFFECT OF IP AND AUDQ ON FRQ 191

LIST OF ACRONYMS

AACF	Asymmetric Accrual to Cash Flow
AAER	Accounting and Auditing Enforcement Releases
AC	Accounting Conservatism
ACFE	Association of Certified Fraud Examiners
ADF	Augmented Dickey-Fulley
ADR	American Depositary Receipts
AEM	Accrual Earnings Management
AFR	Audit Fee Ratio
APRM	Africa Peer Review Mechanism
AQ	Accrual Quality
AR	Accrual Ratio
ASEAN	Association of Southeast Asian Nations
AT	Asymmetric Timeliness
AU	African Union
AudQ	Auditor Quality
BodEff	Board Efficiency
BRVM	Bourse Regionale des Valeurs Mobilieres
BTM	Book to Market
CEOs	Chief Executive Officers
CFOs	Chief Financial Officers
DA	Discretionary Accrual
DAA	Discretionary Accrual Adjustment
EM	Earnings Management

EU	European Union
FDI	Foreign Direct Investment
FRQ	Financial Reporting Quality
FRQI	Financial Reporting Quality Index
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GMM	Generalize Method of Moment
IAASB	International Auditing and Assurance Standards Board
IASB	International Accounting Standards Board
IESBA	International Ethics Standards Board for Accountants
IFRS	International Financial Reporting Standards
IFRS'CF	International Financial Reporting Standards Conceptual Framework
IP	Investor Protection
IPS	Im-Pesaran-Shin
IV	Instrumental Variables
LAR	Loss Avoidance Ratio
LIFO	Last-in-First-Out
MgtQ	Management Quality
NBAR	Non-Big4 Auditor Ratio
NEPAD	New Partnership for Africa's Development
PDAR	Profit Decline Avoidance Ratio
PP	Philip Peron
PPE	Property, Plant and Equipment
ProMgt	Professional Management

PWC	Pricewaterhouse Coopers
QAOR	Qualified Audit Opinion Ratio
RegSE	Regulation of Stock Exchange
REM	Real Earnings Management
ROA	Return on Assets
ROE	Return on Equity
S & P	Standards & Poor's
SD	Standard Deviation
SEC	Security and Exchange Commission
SEM-PLS	Structural Equation Model- Partial Least Square
SSA	Sub-Saharan Africa
Sys-GMM	System Generalized Method of Moment
TMT	Top Management Team
TNSLF	Total Number of Small Loss Firm
TNSPDF	Total Number of Small Profit Decrease Firm
TNSPF	Total Number of Small Profit Firm
TNSPIF	Total Number of Small Profit Increase Firm
UK	United Kingdom
UNDP	United Nation Development Programmes
U.S.	United States
VIF	Variance Inflation Factor
VSM's	Values Survey Modules
WAEMU	West African Economic and Monetary Union
WEF	World Economic Forum

CHAPTER ONE

OVERVIEW OF THE STUDY

1. Introduction

Increased globalisation of financial and products markets has led to heightened interest of investors, creditors and regulators in the quality of firms' accounting information contained in financial reports. Economic Theory postulates that high-quality accounting information and financial report assuage asymmetrical information and hence lessens the cost of capital, *ceteris paribus* (Habib et al., 2019). In Africa, accounting information quality is acknowledged as a key ingredient for capital market development and growth in foreign direct investment (FDI) (Randriamiarana, 2015). Consequently, the Africa Peer Review Mechanism (APRM) which was established by the African Union (AU) as a foundation to effectuate the New Partnership for Development (NEPAD) recognises accounting and auditing quality as focal elements in corporate governance and therefore key consideration in assessing countries' performance (Ababio, 2017). The constant and insistent call for improved quality of accounting information by investors and other stakeholder has propelled the adoption in many African economies, the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and the International Auditing and Assurance Standards (IAAS) issued by the International Auditing and Assurance Standards Board (IAASB) to respectively guide firms in their financial reporting process and audit firms in carrying out audit engagements. As suggested by Boolaky et al. (2020), the adoption of these standards is generally aimed at enhancing financial reporting quality (FRQ), ensuring standardization and convergence in financial reporting and improving audit quality.

The increasing adoption of the IFRS and IAAS among African countries nonetheless, the Association of Certified Fraud Examiners (ACFE) reports to the Nation have continuously shown increasing cases of financial statements fraud in Sub-Saharan Africa (SSA) and rank SSA second to the United States (U.S.) in global cases of occupational fraud including financial statement fraud. These situations have made it imperative for researchers to find answers to the question of the factors that drive FRQ in SSA. In this study, an attempt is made to provide some empirical answers on some of the factors that drive FRQ in SSA by evaluating the implication of three main

factors, namely investor protection (IP) auditor quality (AudQ) and management quality (MgtQ) on FRQ in SSA.

In this chapter of the thesis, the researcher discussed the background of the study to place the study into context. In addition, the statement of the research problem, which delineate the identified gaps in the existing literature is explored to provide a basis for this thesis. It further explains the relevance and contribution of the study to the theory and practice of accounting, auditing and management. Other issues discussed in this section include the general objective (aims) of the study, the specific objectives and the research question developed to achieve the aim. Furthermore, the chapter discussed the organisation of the thesis to establish how each chapter is constructed toward the achievement of the research objectives.

1.1 Background of the study

Economic Theory postulates that improving the qualitative characteristics of accounting information propels symmetrical information between corporate insiders and investors and have a positive impact on the cost of capital (Habib et al., 2019; Muttakin et al., 2020). Theoretical arguments by Jensen and Meckling [JM] (1979) posit that high-quality financial reporting is a mechanism to alleviate agency problems which are usually induced by information uncertainty resulting from incongruent goals of corporate insiders and investors. As suggested by Izi et al. (2020), symmetrical information between corporate insiders and outside investors that emanate from high-quality financial reports result in lowering the cost of capital and enhancing the efficiency and effectiveness of investment project identification and selection. Consistent with these theoretical postulations, empirical studies have evidenced that FRQ is linked positively to capital market valuation of benefit (Bushee et al., 2019; Pavlopoulos et al., 2019), capital allocation efficiency (Ferracuti & Stubben, 2019; Rashid, 2020), efficient investment (Dou et al., 2019), FDI (Gu et al., 2019; Pinto et al., 2019; Nam et al., 2020) and corporate innovation (Park, 2018). Considering the importance of cost of capital to security prices volatility, security market performance and investor confidence as suggested by researchers (such as Salehi et al., 2018; Shahzad et al., 2019; Habib et al., 2019), FRQ have been acknowledged as one of the critical requirement for private firms' investment efficiency, corporate financing and economic growth. The positive implications of FRQ on the economy of a country are accentuated by the assertions

of Lin et al. (2014:19) that “a stable financial reporting system is an important part of the overall economic fabric”. Consequently, financial statement manipulation and associated misstatements in accounting information are adversarial to investor confidence, the overall cost of capital in a country, security price volatility, capital market performance and overall economic growth.

The critical nature of quality accounting information to an economy notwithstanding, financial reporting irregularities have become a primary menace to the stock market globally and many firms decide against the optimal FRQ. This is manifested by recent accounting scandals, financial restatements and corporate failures such as Enron, WorldCom in the U.S.; British Telecom, Powerscreen International, in Europe; Toshiba Corp, Satyam in Asia and the Middle East; and Cadbury Nigerian plc, Lever Brothers plc and Steinhoff and Ghana banking sector crisis in Sub-Saharan Africa (SSA). The ACFE (2020) also provides evidence of how financial statements fraud have bedevilled global economies with associated high economic cost. For example, the ACFE (2016; 2020) reports that financial statement fraud remains the single largest contributor to the global losses (between \$6.3 billion to \$3.5 trillion) from occupational fraud, accounting for a median loss of \$900,000 to \$4,100,000 (72% to 91% of global median loss). The phenomenon of fraudulent financial reporting by firms across the globe has generally been regarded as threats to countries' attractiveness to FDI, capital market development and overall economic growth. Financial statement irregularities undeniably weaken the link between reported financial performance and position and the true economic performance and position of firms and lead to expropriation from investors. Consequently identifying the factors that drive FRQ has become imperative for accounting research to provide some parameters to guide countries in ensuring effective financial reporting.

The widespread failures in accounting information disclosure have occasioned a renewed imperative by countries to institute mechanism to ameliorate the FRQ of firms and to consolidate the controls of corporate managers by instituting a more functional governance structure and effective regulatory regime. From the agency and institutional theories perspective, the primary mechanism for a firm's financial reporting system are the corporate managers and the board of directors who primarily superintend the preparation of the financial reports, an external auditor who validate the information and the institutions that regulate the managers and the auditor.

Corporate management and board are primarily responsible for ensuring financial reporting system and overall internal control environment of an entity produce better quality financial reports that enhance investors' decision. This management function is corroborated by assertions by Jui and Wong (2013:1) that "management is responsible for the financial information produced by the company. As such, professional accountants in businesses, therefore, have the task of defending the quality of financial reporting right at the source where the numbers and figures are produced". Consequently, the spate of financial reporting failures and consequential corporate failures witness across the globe are first blameable on the increasing opportunistic behaviour of corporate insiders. Accordingly, financial statement fraud is typically committed within the internal governance mechanism by someone in a managerial role who has the ability and the incentive to alter financial statement without been detected (ACFE, 2019; Svabova et al., 2020; Mohammadi et al., 2020). As suggested by Becker et al. (1998) managers are incentivised by contracts that are based on accounting earnings to manipulate accounting information and produce fictitious financial reports to disguise the corporate financial performance and to enshroud their private control perquisite from investors.

Financial reporting manipulations usually entails management countermand of internal controls and accounting processes that otherwise may seem to be functioning effectively (Rani et al., 2013). Such internal control overrides by management include activities such as spurious accounting (journal) entries (especially close to the end of a financial year), to misrepresent operational performance; inappropriately modifying assumptions, changing accounting policy and varying judgments used to estimate account balances; expunging accounting records, expediting or deferring recognition of events and transactions in the financial statements for the accounting period; enshrouding or nondisclosure of facts that could influence reported amount; undertaking multiplex financial transactions that are designed to manipulate firm's financial position and disguise firm's performance or cash flow position and adjusting accounting records and terms related to significant and extraordinary transactions.

Notwithstanding the incentives and the ability of management to manipulate financial reports by overriding internal control mechanisms, the professionalism of management and the extent of accountability of the board of directors to investors should drive the risk of control override and other fraudulent behavioural tendencies of management (Rashid 2020). For example, the conduct

of professional accountants is governed by ethical standards promulgated by the International Ethics Standards Board for Accountants (IESBA). This Code of Ethics provides for the fundamental principles of professional ethical standards which include professional behaviour, confidentiality integrity, objectivity, and professional competence and due care, (Rashid, 2020; Priscilla & Siregar, 2020). Professional managers are enjoined to comply with these ethical standards and behave professionally or otherwise be subject to sanctions from their professional bodies (Zhang, 2019; Rashid, 2020; Priscilla & Siregar, 2020). Consequently, professional management (ProMgt) for fear of sanctions and cost of reputational damage will be more restrained in overriding internal controls than non-ProMgt.

The financial reporting behaviour of corporate managers will be guided by the level of professionalism and ethical values of corporate managers. As such, the extent of professionalism of corporate management and the degree to which management is accountable to investors and boards of directors should affect their accounting policy choices, application of accounting policies in producing financial reports. FRQ is thus linked to the quality of management employed by firms and the efficacy of the corporate board of directors (Firoozi et al., 2016; García-Meca & García-Sánchez, 2017). Due to their susceptibility to the professional cost when corporate financial misreporting is detected and are punished, ProMgt are expected to ensure higher FRQ than non-ProMgt with less reputation capital especially as regulatory and enforcement regime becomes stronger and stricter. Consequently, it is posited that FRQ is more likely to be high when firm rely on professional in senior management positions than on relatives or friends without regard to merit. Furthermore, in countries where management is greatly accountable to investors and the boards of directors, FRQ is more likely to be enhanced. However, these propositions are yet to be tested in empirical research especially in emerging economies.

From the JM (1979) Principal-Agency Theory perspective, external auditing is the mechanism put in place by investors to provide an independent assessment of management accounting information representations and checks the credibility of financial disclosures from corporate managers. Auditors play both information intermediation and assurance provider roles in the financial reporting system through independent and effective verification of the accuracy of companies' financial statements before publication; and are legally accountable for damages to users of financial information if they are negligent (PricewaterhouseCoopers [PWC], 2017). Auditors

therefore primarily promote transparency in financial reporting processes to ensure that quality financial information serves as the basis for decision making by investors. Auditing reinforces the confidence and obligation of stewardship between managers and investors who require assurance on the accuracy and fairness of the reported firms' operating performance and financial position (PWC, 2017). Accordingly, although corporate managers and board are primarily responsible for the prevention and detection of misstatements in financial reports, the International Standards of Auditing 240 requires auditors to obtain sufficient and appropriate evidence and provide reasonable assurance to investors and other stakeholders that the entire financial reports are devoid of material misstatement, whether instigated by error or fraud.

Notwithstanding the role of auditing in ensuring FRQ, there are inherent limitations in auditing emanating from the possibility that some material misstatements in the financial reports may elude auditors or observed misstatement in the financial reports may not be reported. The level of audit risk and the effectiveness of auditors in restraining or reporting detected misstatements in the financial statement have a link with the quality of the audit firm employed by an entity (Rajgopal et al., 2019). The International Auditing and Assurance Standards Board (IAASB) acknowledges the complexities in defining the term audit quality and there is generally a lack of universally accepted definition and analysis of the subject matter. The IAASB indicates that the extent of involvement in an auditing process by investors and audit committee and the criteria stakeholders used to evaluate audit quality leads to a diverse understanding of audit quality. DeAngelo (1981) elucidated that audit quality is the combined likelihood of detecting and reporting accounting irregularities or material misstatements contained in a firm's financial statements. Accordingly, the auditor's capacity to detect material misstatement or errors (technical capability) and the ability to report the material misstatements detected (auditor independence) determine AudQ. Researchers such as Alzoubi (2017) Alhadab and Clacher (2017) following DeAngelo's postulation have therefore argued that since the technical capability is usually presumed to be invariant across auditors, auditor independence is the main determinant of audit quality. Consequently, AudQ is presumed to not dissociate from audit firm size (Rajgopal et al., 2019). This is because when auditors "earn client-specific quasi-rents", auditors with a substantial client base have more to lose by failing to report observed material misstatements and breach in particular client records. This collateral characteristic reinforces the quality of audit provided by Big4 audit firms relative to the non-Big4 audit firm. Since the primary objective of auditing is to assure

investors and other stakeholders of financial report quality, AudQ can be said to mean the probability that financial report on which unqualified audit report has been issued contain no material misstatements.

Following from the argument from DeAngelo on audit quality, most researchers (such as Becker et al., 1998; Alzoubi, 2016; Alzoubi, 2017; Alhadab & Clacher, 2017; Wang et al., 2017) have employed audit firm size as a measure of audit quality. The presentiment is that Big4 audit firms have access to better resources related to technology, training and facilities to perform better quality audit and restraint financial report manipulation. Big4 audit firms are also presumed to be more independent relative to non-Big4 audit firms because Big4 audit firms are deemed to have a high susceptibility to reputational risk if they are found to be negligent; have minimal reliance on an individual client's revenues and a hence lower likelihood of being influenced by an individual client; and their larger revenue base makes them more susceptible to high risk of litigation (DeFond & Zhang, 2014; Rajgopal et al., 2019). The use of Big4 audit firm should better restrain corporate management from capitalising on their discretionary powers to manipulate financial than the use of non-Big4 audit firm. Consequently, it is presumed that Big4 audit firm dispenses superior quality audit and ensure FRQ by client-firms than non-Big4 audit firm.

The arguments that Big4 auditors provide higher quality audit and ensure FRQ have however been challenged by studies such as Habbash and Alghamdi (2017) Yasser and Soliman (2018) Khanh and Nguyen (2018) Ismayil (2020). These counterarguments have been more evident by the association of Big4 audit firm with recent reported financial statement fraud cases. Therefore the role of the Big4 audit firm in ensuring higher audit quality has been considered one of the most contentious research questions in accounting literature. Big4 auditor implications on FRQ have been contended to be conditioned on the nature of laws, regulation and enforcement regime in a particular jurisdiction and thus different legal and enforcement regime may produce different outcomes (Jordan et al., 2010; Farda et al., 2020; Almarayeh et al., 2020). Consequently, in the absence strong and strict legal regime and enforcement system in a jurisdiction, an opportunity for financial statement fraud increase and auditors might acquiesce to fraudulent manipulation of financial statement by managers and neglect to report detected material misstatements in the financial statement (Francis & Wang, 2008). However, since financial reporting failure exposes managers and audit firm to litigation for fraud and negligence, it can be surmised that as a country's

legal regime and enforcement system are strengthened and there is an enhanced possibility that misreporting of accounting information is detected and penalised, FRQ will be enhanced. However, based on the reputational hypothesis postulated by DeAngelo (1981) and the deep pocket hypothesis postulated by Dye (1993) and supported by Lennox (1999), the enhanced FRQ will characterize companies that engage the services of Big4 audit firms who are more susceptible to litigation because of their greater wealth and reputation.

The argument that the engagement of MgtQ and quality auditor may not necessarily translate into FRQ give credence to the relevance of the legal and regulatory environment of a country in coercively influencing the financial reporting behaviour of firms (Newman et al., 2005; Rika et al., 2020). Corporate financial securities bestow onto owners defined rights and powers specified in law (Hart, 1995) which are ordinarily safeguarded through laws, regulations (including companies law, securities laws, bankruptcy laws, corporate takeover or insolvency laws, competition laws, stock exchange regulations and accounting standards), and enforcement system in a jurisdiction. Corporate disclosure requirement, accounting rules and other corporate governance regulations ensure that investors are provided with the required information to exercise their rights. The laws and enforcement regime of a country are as crucial as the content of the laws and the market regulators, the judicial system, and market participants themselves are the main mechanism for enforcing these laws and regulations. Investors, irrespective of their size, require protection and safeguard of their rights. As suggested by La Porta et al. (2000), without an appropriate and effective IP mechanism, there is a high propensity of corporation defaults in repaying their creditors or to distributing profit to shareholders which has the consequences of break down in external financing.

According to Rika et al. (2020) the quality of laws in a country, the willingness and ability of the judicial system to enforce those laws and the possibility that violation of investors' right is detected, revealed and punished are factors that collectively characterize the degree of IP in that country. Strong IP regime assuages information and transaction cost and the legal institution that protect the interest of investors are an integral part of financial development (Rika et al., 2020; Kamarudin et al., 2020). Legal and institutional reforms that strengthen IP regime is expected to invigorate shareholders and creditors to seek legal redress on insiders that engages in financial statement fraud and external auditor that acquiesce to fraudulent behaviour of insiders to expropriate

investors or fail to report fraudulent financial statement. IP regime is thus considered a very important factor in influencing firm-level corporate governance mechanism (Doidge et al., 2007; Rika et al., 2020; Kamarudin et al., 2020) to ensure FRQ. However, this is only to the extent that material misstatements and errors in the financial reports are detected and reported. The collaboration of strong IP and AudQ should therefore influence firm to engage high MgtQ, make management more accountable to investors and the boards of directors, and eventually compel firms to produce high-quality financial reports. However, the existing empirical studies which focus on the relationship between AudQ and FRQ failed to account for the influence of a country's IP regime. Besides, those that examined the relationship between audit quality and FRQ focused on the developed economies. The extant limited international studies cannot be assumed to be representing SSA. SSA is a significant contributor of globally reported cases of financial reporting fraud (ACFE, 2020) and yet are at lower stages in the development of the IP regime. The importance of FRQ, effective rules and regulations and audit effectiveness to the development of African warrants an empirical investigation into the implications of IP and audit quality on FRQ in an SSA setting.

1.2 Statement of the Research Problem

The increasing cases of accounting information misreporting and its consequential effect on the overall economic fabric have heightened the attention of researcher to empirically determine the factors that influence firms to produce high-quality financial reports that can mitigate investors' losses and improve investment decision. The Agency Theory suggests three main actors in firms financial reporting process (namely Management, Auditors and Regulations or institutions) which have been a subject of empirical review in the quest to find answers to the question of the factors that drive FRQ of firms.

Fraudulent financial reporting is typically committed by managers who not only can alter firms' financial statements but also have an incentive to do so without been detected (ACFE, 2019; Svabova et al., 2020; Mohammadi et al., 2020; Becker et al., 1998). The Upper Echelon Theory by Hambrick (2007) posits that the exposure, experiences, values, and personality of managers significantly shape how they interpret the situations they encounter and, in turn, affect their choices of policies and practices. The discretion and choices by corporate managers have a possible link with their personal experience or assessment of available information. Since financial reporting

largely borders on accounting choices and discretionary, the professionalism of management could influence the quality of financial report they produce. Conceptually, higher-quality management personnel should have a better appreciation of their firms business as well as the economic, political and regulatory implications of their decision and should be more guided by professional ethics in producing accounting information to investors (Rashid, 2020; Baik et al., 2020; Demerjian et al., 2013). Consequently, it is hypothesised that FRQ is more likely to be high in countries where firms rely on professionals in senior management positions than in countries that firms rely on relatives or friends without regard to merit. It is further hypothesised that in countries where management is greatly accountable to investors and the boards of directors, the quality of financial reporting produced by firms is highly probable to be enhanced.

In testing the MgtQ hypothesis, research has paid some attention to how firms can harness the qualitative characteristics of management to ensure financial reporting quality (FRQ). However, extant studies have been country-specific and no study has yet considered a cross country view of the implication of ProMgt on FRQ. Further, empirical research has not considered the FRQ implication of management quality from the perspective of countries in the African continent. Considering the trend of financial reporting fraud in Sub-Saharan Africa (SSA) as reported by the Association of Certified Fraud Examiners [ACFE] (2016; 2020), filling such an empirical gap would assist policymakers in fashioning out strategies to improve FRQ to foster economic growth in SSA. In addition to the contextual gap in the literature, studies that examine the nexus between management qualitative characteristics and FRQ in other jurisdictions have produced conflicting directions. One strand of the literature contends that firms with high-quality management produce better quality accounting information (Baik et al., 2018; Wang et al., 2017; García-Meca & García-Sánchez, 2017; Rashid, 2020). Conversely, another school of thought contend that firms with high-quality management tend to manipulate accounting information through non-transparent financial disclosures with others suggesting that the quality of management may be irrelevant in the financial reporting behaviour of firms (Priscilla & Siregar, 2020; Li et al., 2016; Francis et al., 2008). These conflicting results confirm that accounting literature has been inconclusive on the effect of management quality on FRQ and thus providing opportunities for further research.

Furthermore, the legal, regulatory and enforcement regime of jurisdiction are critical in shaping a firm's level governance mechanism (Doidge et al., 2007). This assertion is consistent with the

postulations of institutional theorists (DiMaggio & Powell, 1983) that organisations are influenced by the society in which they operate and that individuals' behaviour cannot be dissociated from the institutional and social settings as well as the legal regime in which individual actions take place. Based on the Institutional Theory, the IP regime of a country is, therefore, expected to influence the level of MgtQ employed by firms in that jurisdiction as it will set parameters for who occupies the senior management position in a regulated firm. However, empirical research has not sufficiently examined how IP relates to MgtQ. Even though Doidge et al. (2007), Aggarwal et al. (2008) and Withaar (2016) have attempted to fill this gap, they only looked at board structural and compositional characteristics. Sala-I-Martin et al. (2015) identify board efficacy (BodEff) which is management accountability to the board and investors and reliance on ProMgt as key to internal governance mechanism. However, how an IP regime is linked to reliance on ProMgt and BodEff is yet to be examined by research. Therefore, examining the relationship between IP and MgtQ will contribute to bridging the identified gap in accounting literature.

Another player in the FRQ conundrum prescribed by the agency theory is external auditors and research studies that have examined the determinants of FRQ have linked it to the quality of auditors employed by the firm using Big4 and non-Big4 audit firms as a proxy. These discussions have generally been inconclusive. However, most literature suggests that FRQ is enhanced when a reporting entity utilises the services of a Big4 Audit firm than non-Big4 audit firms. In illuminating the big size audit firm hypothesis, recent studies (such as Persakis & Iatridis, 2016; Alzoubi, 2016; Lopes, 2018; Alzoubi, 2018; Özcan, 2019) found a significant positive link between audit firm size (proxied by Big4 audit firm) and FRQ. These studies reinforced the view that FRQ is significantly high among firms that engage the services of a Big4 audit firm, as compared to firms utilizing the service of a non-Big4 audit firm.

Though many studies concur to the positive effect of AudQ on FRQ, other evidence particularly those outside the U.S. and Europe (such as Habbash & Alghamdi, 2017; Ajekwe & Ibiamke, 2017; Yasser & Soliman, 2018; Khanh & Nguyen, 2018; Ismayil, 2020) indicates that there is no significant audit service quality disparity between a Big4 audit firm and a non-Big4 audit firm and that Big4 audit firm does not restrain financial statement fraud than non-Big4 audit firm. These studies did not find a significant relationship between audit firm size and FRQ. Jordan et al. (2010) confirm that while studies in the U.S. conclude that, compared to small audit firms, large

international audit firms aggressively constrain clients' attempts to manipulate financial statement in general, research outside the U.S. finds no consistent FRQ differential based on auditor size. This, therefore, indicates that the relationship between AudQ and FRQ may be contextually dependent and SSA countries may have a different result. Given that the implication of AudQ on FRQ has been acknowledged to be contextually dependent, the situation in the African countries may yield different results. Some isolated studies in SSA have also produced conflicting results. As an example, whereas studies such as Kurawa and Aca (2020), Ajekwe and Ibiamke (2017) and Okolie et al. (2014) documented that AudQ significantly and positively impacts FRQ, Alao and Gbolagade (2019), Junaidu and Oladele (2018) and Tyokoso and Tsegba (2015) reveal that both audit firm size and auditor industry specialisation have an insignificant negative impact on FRQ. These studies are also narrow in scope and do not give a general picture of the SSA.

Amid the increasing opportunistic behaviour of management and the increasing tendency of auditors to acquiescing to the fraudulent financial reporting behaviours of management, it has been suggested that it is the collaboration of strong IP and AudQ that can propel MgtQ to drive FRQ. Consequently, recent research such as Francis and Wang (2008), Choi et al. (2008), Persakis and Iatridis (2016), Choi et al. (2018) Cimini et al. (2020), and Almarayeh et al. (2020) have focused on the interactive effect of IP regime and AudQ on FRQ with the hypothesis that, the interaction of a strong and stricter IP regime and AudQ will propel MgtQ to enhance FRQ. Nonetheless, findings from recent research are generally conflicting on the interactive effect of AudQ and IP regime on FRQ.

While some research studies such as Tang et al. (2016), Fang et al. (2016) Kamarudin et al. (2020), Cimini et al. (2020) and Irwandi and Pamungkas (2020) have provided evidence that, strong and strict IP ensures FRQ, other studies such as Persakis and Iatridis (2016) Ewert and Wagenhofer (2019) argue contrary to the effect that stronger IP regime by itself does not significantly affect FRQ without considering the quality of the auditors. As an example, studies by Francis and Wang (2008) indicate that Big4 does not lead to FRQ in a feeble IP regime. However as the IP regime become stronger and stricter, Big4 auditors will ensure higher FRQ than non-Big4 auditors. According to them, stricter IP per se may not result in increased FRQ. Nonetheless, studies by Tang et al. (2016), Kamarudin et al. (2020), Cimini et al. (2020) and Irwandi and Pamungkas (2020) show that, the scale of FRQ is not homogenous and that a stricter legal, regulatory and

enforcement regime can minimize the magnitude of financial reporting manipulation notwithstanding the type or size of auditors engaged by firms. This dichotomy in recent research findings indicates that the relation between IP – AudQ and FRQ remains an empirical question that requires further studies.

Moreover, the existing empirical research on the interactive effect of IP and AudQ on FRQ has focused on the developed economies. The extant limited international studies cannot be assumed to be representing SSA. This is because apart from the fact that very few SSA countries were sampled for inclusion in the studies, their effects were subsumed in global data. SSA is regarded as a significant contributor of globally reported cases of financial reporting fraud according to ACFE and yet are at lower stages in the development of IP rules, legal and enforcement systems and the adoption of IFRS, even though they can be said to have strong cultural values. As FRQ, effective rules and regulations and audit effectiveness are considered critical for African development, it may be appropriate to get the true picture of how these key factors interrelate from a purely SSA perspective. Therefore, a thoroughly established knowledge of the implications of IP and AudQ on FRQ in the SSA is imperative.

This study, therefore, extends the existing studies on governance in Africa by looking at the implications of the laws, regulations, legalities and enforcement systems on FRQ and whether AudQ and MgtQ matter in this relationship based on data from the SSA to fill the identified contextual gap in the existing international study. It employs dynamic panel analysis to fill the methodological gap in the literature.

1.3 General and specific objectives of the Study

1.3.1 The General objective of the study

The purpose of the study was to determine the implication of IP and AudQ on FRQ in SSA and to establish the relevance of MgtQ in FRQ as well as determining how an improved IP regime will enhance corporate management. The realisation of this aim will improve financial reporting in SSA to foster foreign direct investment, reduce the cost of capital and help improve economic growth.

1.3.2 Specific objectives of the study

The specific objectives pursued to achieve the general objective study were:

- 1.3.2.1 To examine the relationship between MgtQ and FRQ in SSA;
- 1.3.2.2 To investigate the relationship between IP and MgtQ in SSA;
- 1.3.2.3 To examine the relationship between AudQ and FRQ in SSA;
- 1.3.2.4 To investigate the link between IP regime and FRQ in SSA; and
- 1.3.2.5 To examine how the interaction between IP and AudQ affect FRQ in SSA.

1.4 Research questions of the Study

The following research questions were answered in pursuit of the above objectives of the study: achieve the above objectives, the following questions were answered:

- 1.4.1 What is the relationship between MgtQ and FRQ in SSA?
- 1.4.2 To what extent does an IP regime influence countries' MgtQ in SSA?
- 1.4.3 What is the relationship between AudQ and FRQ in SSA?
- 1.4.4 To what extent does an IP regime drive FRQ in SSA?
- 1.4.5 How does the interaction between IP and AudQ affect FRQ in SSA?

1.5 Significance and contributions of the study

This study was undertaken to fill gaps in the available accounting research by examining how IP and AudQ relate to FRQ in SSA. This study also established the relevance of MgtQ in the financial reporting behaviour of firms as well as examined the influence of IP on the MgtQ of firms in the sub-region. This study, therefore, contributes to the literature in many respect.

First, the study broadens the understanding of the link between firms' financial reporting behaviour and the IP environment of a country in the SSA context. It is the first study to test the application of the Institutional Theory in the SSA context. In this context, the study provides the first encompassing analysis of FRQ and the institutional factors that influence financial reporting behaviour. This facilitates the forming of conclusions that deepens the understanding of FRQ in SSA.

Second, this study broadens the understanding of the effect of management quality on the quality of financial reports produced by firms on a cross country basis and in the SSA context. This is the first study to test the Upper Echelon on a cross country basis and in SSA. By this, the study facilitates the forming of conclusion that elucidate the relationship between reliance on ProMgt and BodEff on the FRQ.

Third, By providing evidence that in the absence of a strong IP regime, the engagement of Big4 auditors by firms in SSA do not significantly affect the Financial reporting quality despite the high audit fees, Stock Market monitors and regulatory institutions in SSA may consider improving their regulatory and enforcement systems to foster the growth of local audit firms.

Fourth, the study established the effect of a country's IP regime on firms' reliance on ProMgt and BodEff for the first time in empirical literature to determine how a country's legal, regulatory and enforcement environment influence executive hiring policies of firms and the accountable nature of management in SSA. The evidence of this study confirms the relationship between the Institutional Theory and the Upper Echelon Theory. The results of the study provide a guide to policymakers in SSA to consider facilitating the engagement of professional management and ensuring board efficacy to improve FRQ.

Practically, the study offers directions to economic managers of SSA on how to improve auditing and stimulate financial reporting integrity in the SSA sub-region to improved financial market performance and drive FDI for economic growth. The study shows that firms can increase their FRQ if they engage the services of ProMgt and an efficient board of directors. Therefore, the governments and regulatory bodies in SSA must introduce corporate governance systems that will require a certain level of experience and qualification from management and boards of directors. The results further showed that the financial reporting regime of firms in SSA can improve if these countries have a strong IP regime. Therefore, there is a need for the various governments in SSA to promulgate laws and regulations to protect the interest of investors, which will result in a quality financial reporting regime. It was further demonstrated that AudQ exhibited a significant positive impact only in a country with a strong and strict IP regime. This study, therefore, provides evidence to institutions such as the Securities and Exchange Commission (SEC), corporate regulatory institution, the Judicial Services and other governmental institutions of SSA countries in charges

of regulations on how to foster firms' reliance on ProMgt, and BodEff and enhance FRQ using a strict regulation and enforcement system. It also serves as a guide to a corporate organisation on how to improve their accounting information quality to boost investor confidence and reduce the cost of capital.

1.6 Scope of and limitation to the study

The study was conducted in the context of SSA, using various samples from 2007 to 2017. Therefore, findings from this study generally apply to SSA, but cannot be taken to depict the specific conditions of the countries in SSA. Specific country-level studies could be undertaken not only to know how the findings fit in the general models but also to prescribe specific policies for these economies. Moreover, the financial statements used for this study were based on the SSA stock market on African-market.com. Therefore, only 14 stock exchanges were used in this study, thereby making the applicability of the study to other SSA countries without a stock market on the Africa-market.com a challenge. Despite these challenges, the researcher believes the methods and estimation techniques that were used, were appropriate for the available data. Moreover, the findings were robust enough for a general application to the SSA region.

1.7 Organisation of chapters

This thesis is organised into five chapters. The current chapter presented the background and have laid the foundation for the study. In addition, it presented the research problem that identified the gap in the existing literature that instigated the need for this research investigation and provided the general and specific objectives of the study. Furthermore, this chapter discussed the research questions, the contributions of the study, and the scope of and limitations to the study.

Following this introductory chapter, the second chapter sets the scene for the thesis by discussing the relevant theoretical, conceptual and empirical literature for all the objectives of the study. In this chapter, the key variables for the study are described and how they are measured. The theories adopted for the study are discussed, following which the drivers of FRQ literature within the framework of these theories are reviewed. Specifically, agency and upper echelons and institutional theories are reviewed first. Prior research that investigated the relationship between

IP, MgtQ, AudQ and FRQ is then reviewed. The empirical literature is reviewed under each research objective set out in this thesis.

Chapter 3 provides details of the research methodology employed in this study. The methods and approaches chosen, sample selection, data sources, variable measurement and data analysis techniques employed for each research objective are discussed. The estimation techniques employed for each research objective are also presented.

Chapter 4 presents the results of the data analysis, findings and discussions relating to the various objectives. This chapter is divided into sections to address each objective. Section 1 of this chapter presents the results of the data analysis, findings and discussions relating to the relationship between MgtQ and FRQ in SSA. In the second section, the results of the data analysis and findings relating to the association between IP and MgtQ are discussed. Section 3 of the chapter discusses the results of the data analysis and the findings on the relationship between AudQ and FRQ in SSA. The data analysis, findings and discussions relating to the relationship between IP and FRQ in SSA are presented in the fourth section of this chapter. In the same section, the data analysis, findings and discussions relating to the interactive effect of IP and AudQ on FRQ are presented.

Chapter 5 summarises the thesis by providing the major conclusions drawn; offering several recommendations; outlining implications of the results to the literature and practice; highlighting potential limitations to the study; and suggesting future research directions. Finally, overall concluding remarks are presented.

1.8 Chapter summary

FRQ is considered an essential part of the overall economic fabric as it drives investor confidence and the overall cost of capital in a country. However, questions have arisen about the quality of financial reports in recent times due to the wave of accounting scandals and restatements. The ACFE reports to Nations show increasing financial statement fraud with SSA contributing significantly to the global cases of financial statement fraud, which has a dire effect on shareholders' wealth and the growth of SSA economies. Considering the importance of FRQ to economic growth, many developing countries such as those in SSA have focused on strengthening an IP regime, and adopting enhanced accounting and auditing regulations to improve financial

reporting and accounting quality. Nonetheless, relatively little research has been conducted concerning FRQ in SSA, regarding whether the many corporate governances and regulatory reforms being carried out will restrain financial reporting fraud. To fill a part of this gap in the accounting literature, this study determined how the interplay of IP and AudQ relate to FRQ in SSA and establish the relevance of MgtQ in FRQ. This study also determined how an improved IP regime will enhance reliance on ProMgt and BodEff (MgtQ) in SSA management. This chapter laid the foundation for the study and exposed the gaps in the literature and the paucity of study in SSA. It provided the aim and objectives of the study, discussed the underlying research questions, the contributions of the study, and the scope of and limitations to the study.

The following chapter sets the scene for the thesis by providing a review of theoretical, conceptual and empirical literature for all the objectives of the study. It describes the key variables for the study and how they are measured and then reviews the drivers of FRQ literature within the framework of the theories adopted for the study. Specifically, agency and upper echelons and institutional theories are discussed to give the study a theoretical underpinning.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

In the previous chapter, the background of the study was discussed to place the study into context. This included a discussion of the statement of the problem which explained the need for the research study, and the contributions of this study to the advancement of knowledge in the field of accounting, as well as corporate reporting and research. This chapter presents the theoretical and empirical literature review on the relationship among IP, AudQ, MgtQ and FRQ. The chapter highlights the underlying theoretical perspective of the study and the measurement of the key variables. The chapter further evaluates empirical literature on the relation between MgtQ and FRQ; IP and MgtQ; AudQ and FRQ; IP and FRQ and the interactive effect of IP and AudQ on FRQ. Other determinants of MgtQ and FRQ are explored in this chapter coupled with a discussion of various gaps identified in the existing empirical literature.

2.1 Theoretical literature

The fundamental theories underpinning the behaviour of corporate insiders towards investors is the agency theory which has been expanded into other corporate government theories (Abdullah & Valentine, 2009). Based on Berle and Means (1932)'s debate concerning the large public corporation, the Neoclassical Economic Theory of Principal-Agency (JM, 1976) has been associated with the financial model of governance. The behavioural tendencies of corporate insiders towards outside investors are expatiated lucidly by the Principal-Agency Theory which also provides some mechanism for controlling the behaviour of corporate insiders. Therefore, the Agency Theory is deemed appropriate to explain the tendency for insiders to expropriate outside investors and conceal such practice through misleading financial reporting and also to explain the role of the auditor in minimising such corporate behaviour.

The central assumption underlying the Agency Theory that organisational phenomena are driven by maximisation of personal interest has however been criticized by institutional theorist (Hula, 1984 as cited in Mihret et al., 2010). Institutional theorists suggest that individuals' behaviour cannot be dissociated from the social and institutional setting as well as the legal regime in which

individual actions occur. Therefore, the Neoclassical Economic Theory alone may not sufficient in explaining the behaviour of firms without recognising the role of IP. The institutional theory (Barley & Tolbert, 1997) identifies the importance of culture, institutions, and laws in determining corporate insider behaviour and the relationship between insiders and investors.

Another theory that explains the behaviour of a firm is Hambrick and Mason (1984)'s Upper Echelons Theory. The Upper Echelons Theory has been established by researchers (such as Neely Jr et al., 2020) as one of the most influential strategic management perspectives in the literature. The Upper Echelons Theory has served as an impetus for assessing the implications of executives' characteristics and experiences on their perceptions, choices, and actions and how they ultimately impact a variety of corporate outcomes.

From the foregoing, the theoretical perspective identified to be appropriate for explaining the relationship between MgtQ and FRQ is the Upper Echelons Theory; the association between the quality of auditors engage by firms and their FRQ is explained by the Agency Theory, while the Institutional Theory is employed to explain how IP regime of a country is linked to the quality of management engage by firms and FRQ produce by firms in the country. Both the Agency and institutional theory explain the moderating role of a country's IP regime in the interaction between AudQ and FRQ. In the following, these theories are discussed briefly.

2.2.1 The Principal-Agency Theory

The Principal-Agency Theory explains the tendency for insiders to expropriate outside investors and conceal such practice through misleading financial reporting. Berle and Mean (1932) suggest that the primary agency related problem in modern corporation emanates from the divergence of firm ownership and control, whereby those who own the company (shareholders) engage managers (agents) to administer the affairs of the company on theory behalf and reports on the firm's performance to the principals through an annual financial statement. The agency problem arises due to the conflicting interests that result in managers and shareholders. Management pursuit of their interest results in making decisions that are incongruous to maximising shareholders wealth. Nonetheless, shareholders face difficulties in monitoring managerial decisions due to the asymmetry of information between the controllers and the owners.

The potential principal-agent problem is not exclusive to shareholders and managers. JM suggest that companies are regarded as a whole plethora of agency relationships between the different interest groups involved due to the nexus of contracts that exist between the firm and the entire group of resources contributors including shareholders and creditors. Although the agency theory was originally focused on managers, it has been extended to dominant shareholders who can take advantage of their position to appropriate a significant part of corporate rent. The principal-agency problem is today more concerned with conflicting interest existing between managers and controlling shareholders (corporate insiders) on one hand and minority shareholders and creditors (outside investors) on the other rather than the narrow conflicts between managers and shareholders (Charreaux, 2004; Maama & Mkhize, 2020). These investors are susceptible to expropriation tendencies by insiders and thus assume significant corporate residual risk.

As Modigliani and Miller (1958) explain, firms are considered as collections of assets that create cash flows and corporate financial securities, such as equity and debt instruments, represent a claim to the cash flows generated by these investment project. However, the return of the cash flow from investment to holders of the stock and debt securities is not guaranteed as corporate insiders may misappropriate the organisation's economic resources. Given JM's exposition, the presence of asymmetrical information between corporate insiders outside investors, coupled with their conflicting interest is a motivation for fraudulent financial reporting to conceal the accurate and fair view of a company. Therefore, to conceal the true state of a company, corporate managers will renege on their responsibility of ensuring that the financial reporting system and overall control environment of a company, produce high-quality accounting information and FRQ to the outside investors.

Inferring from the foregoing, the following may ensue from the tendency of corporate insiders opportunistic behaviour and the existence of asymmetrical information:

- Corporate management has the propensity to select accounting estimates and policies that project a high-profit level in a current period when the executive compensation is based on earnings.
- Corporate management has the propensity to select accounting estimates and policies that project a high-profit level in a current period when the debt-to-equity ratio is high. This is

usually to enable management to reduce the probability of loan agreement default or mitigate the cost arising from bankruptcy.

- Management is incentivised to take advantage of allowable discretion in accounting to choose policies and estimates that fictitiously boost firms earnings.

Investors, therefore, may have compelling reasons to mistrust their agents and such mistrust is resolved by instituting assurance mechanism and adopting strategic policies to ensure symmetrical information and goal congruence between the principals and the agents to control opportunistic behaviours of corporate insiders. JM (1976) contend that ineffective internal governance mechanism and weak internal control will provide the opportunity for insiders to abuse the discretion in order manage reported earnings to disguise the true firm's performance and state of affairs to conceal their private control benefit from investors. Therefore, effective internal corporate governance plays a key role in mitigating financial statement manipulation (Panda & Leepsa, 2017; Kolbjørnsrud, 2017; Rinaldo & Puspita, 2020). Rinaldo and Puspita (2020) further proposed the establishment of foreign institutional ownership as an independent party to minimise the possibility of the agency problem. Silva and Feiteiro (2019) suggest the use of a stock option to ensure goal congruence between managers and investors. The IP regime of a country, therefore, serves as the main mechanism to ensure goal congruence and effective performance of external auditors.

Tsaruk (2019) underscores that the feature of understanding accounting is a basic element of the corporate governance system designed to minimise the consequences of an agency related problem. Therefore, the role of quality accounting information at the post-contracting stages of corporate structures activities is key in solving agency problem. To ensure the quality of firms' accounting information, JM (1976) suggest the use of independent auditors to provide objective and independent assurance on the integrity and reliability of accounting information produce by insiders to make the financial report reliable. This is because the independent auditors act as a mechanism of trust as it assures the integrity of companies' financial disclosures (Fochmann et al., 2020). External auditors, according to Choudhary et al. (2019), independently validate the information provided by an agent to ensure confidence in accounting information and for that matter reduce information asymmetry. Auditors provide an independent and objective opinion as to whether the financial information as presented by firms is devoid of material misstatements and

is drawn up following relevant laws and reporting standards through impartial independent scrutiny of the financial information.

Furthermore, La Porta et al. (2000) postulate that expropriation is associated with the agency problem elucidated by JM (1976) and that legal and regulatory perspective to corporate governance prescribes the main mechanism to protect outside investors through the legal and enforcement system. La Porta et al. (2000) posit that investors harness their power to obtain returns. Such powers include the power to cause a change in the membership of the board, to force payment of dividend, to reduce projects and other schemes that benefit corporate insiders to the detriment of investors, to sue directors for compensation, or to cause the liquidation of the firm and receive the proceeds.

The legal and enforcement system is acknowledged in both the contractual framework by JM and the residual control right framework of Grossman and Hart (1988) to specify the right of investors and offer protection to these rights. La Porta et al. (2000) substantiate that contract laws dealing with the privately negotiated arrangement, company, bankruptcy and securities laws specifically prescribing some of the rights of corporate insiders and outside investors exemplify the protection investors obtain from the legal system of a country. Accordingly, the nature of the laws and the quality of their enforcement by the regulators and the judicial system are essential elements of corporate governance. Investors are thus motivated to provide the needed finance when their rights (such as voting, reorganization and liquidation rights) are extensive and well-enforced by regulators and the judicial system. Conversely, corporate governance and external finance are challenging in a jurisdiction with a weak legal system to protect outside investors.

From the foregoing, the research identifies the stock markets monitor and legal, regulatory and enforcement systems of a country as a key mechanism in reducing opportunistic tendencies of corporate insider and ensuring accounting information quality (Husseinalli et al., 2016). As explained by Rakestraw (2020), an IP regime of a country is considered very important in influencing firm-level corporate governance mechanisms to ensure FRQ. These mechanisms, according to Rakestraw, (2020) can reduce agency costs resulting from conflicts between managers and shareholders.

From the Agency Theory, corporate insiders tend to expropriate investors and conceal such practice through misleading financial reporting. To mitigate such expropriation tendencies

requires MgtQ, quality audit and strong regulation to reduce information asymmetry by checking the credibility of information that emanates from managers to corporate investors. The Agency Theory is considered as the Fundamental Theory to explain corporate governance and the behaviour of managers, as well as the role of auditors and other monitoring mechanisms. Based on the arguments of La Porta et al. (2000), Husseinnali et al. (2016) and Rakestraw, (2020), it can be surmised that although the Agency Theory explain the tendencies of investors expropriation and financial reporting fraud and requires the use of auditors to mitigate such risk, legal and regulatory regime serves as the external mechanism to check the performance of both managers and auditors in producing quality financial reports. Nonetheless, the core assumption underpinning the Principal-Agency Theory that organisational phenomena are motivated by corporate insiders' pursuit of self-interest against value maximisation required by investors has been criticised by institutional theorists. Institutional theorists posit that behavioural tendencies cannot be abstracted from the social and institutional setting, as well as the legal regime in which individual actions take place. As a result, the Neoclassical Economic Theory of Principal-Agency does not sufficiently explain the behaviour of firms.

2.2.2 Institutional Theory

The Neoclassical Institutional Theory articulated by Meyer and Rowan (1977) and DiMaggio and Powell (1983) postulate that organisations are predisposed to the influence of the society in which they operate. The Institutional Theory is a theory on the deeper effect and resilient nature of social structure in controlling the behaviour of firms. The Institutional Theory espouses the processes by which structures, including societal schemes, rules, norms, and routines get established as authoritative guidelines for social behaviour (Scott, 2010). Institutions are a collection of cultural-cognitive, normative, and regulative elements that, together with related activities and resources, provide stability and meaning to social life (Alvesson & Spicer, 2019). Institutions operate at various levels of jurisdiction, from the world system to localised interpersonal relationships and professional practices. DiMaggio and Powell (1983) buttress that these environmental factors are established as authoritative guidelines for social behaviour and usually are manifested in the form of rules imposed by the government and other external bodies; the values system and norms that are incorporated as part of the socialisation processes; the cultural controls that support the belief system of a profession.

The Institutional Theory is principled on the idea that the inclinations for organisations to conform to prevailing societal norms, traditions and social pressures in their internal and external environments can lead to homogeneity in organisations structure (Ahmad, 2015; van Wijk, et al., 2019). DiMaggio and Powell (1983) suggest that conformity to the established authoritative behavioural direction in both internal and external environment enables the organisation to obtain legitimacy and therefore, survive.

The assertions DiMaggio and Powell, (1983) indicate that the Institutional Theory recognises the importance of culture, institutions and laws as a major influence on corporate behaviour including hiring policies, board effectiveness, management accountability and financial reporting. It also influences the relationship between corporation and investors. Therefore, the institutional theory provides the theoretical underpin on how IP influence managerial behaviour to produce quality financial reports. The Theory suggests that the occurrence or non-occurrence of any economic or governance phenomenon – including financial reporting manipulation, audit failure, management quality – should be looked at as a phenomenon occurring within the context of the surrounding environment, including social, cultural, political, regulatory, and other related environments. Institutions are regarded as the upshot of processes of "structuration" that create structures. Structures are rules and resources that enable the functioning of social systems (Peters, 2019). DiMaggio and Powell (1983) explain the relationships between institutions and organisations based on the concept of structures as follows:

“Enterprise only exist to the extent that they are institutionally defined. The process of institutional definition, or "structuration", consists of four parts: an increase in the extent of interaction among organisations in the field; the emergence of sharply defined inter-organisational structures of domination and patterns of the coalition; an increase in the information load with which organisations must contend, and the development of mutual awareness among participant in the set of organisations that are involved in a common enterprise” (1983:148).

The Institutional Theory considers the organisational external environment as a pre-eminent factor in determining a firm's behaviours called the isomorphism process. Tolbert and Zucker (2019) corroborate that when organisations accept the legitimised external environment, isomorphism is attained, and the propensity to survive is usually enhanced. The Theory postulates and expatiates

three general forms of isomorphism that guide and affect organisational practice: coercive, mimetic and normative. Coercive isomorphism concerns the organisation's compulsory adoption of formal or informal structures or rules, including government mandate (DiMaggio & Powell, 1983). Coercion emphasises the role of laws, regulations and judicial system and originates from political influence and the need for legitimacy. As Ahmad (2015) put it:

“coercive isomorphism occurs from forces put forth on organisations and decision-makers to follow or adopt certain institutionalized rules and practice by other organisations upon which they are dependent and by cultural expectations from the society within which the organisation function” (2015:98).

Mimetic isomorphism is said to have occurred when one organisation emulates another organisation, often due to uncertainty (Ahmad, 2015; Marini, 2020). Mimetic isomorphism emphasis that organisations endeavour to model themselves on the practices of a comparable organisation, which is perceived to be more legitimate (Marini, 2020; Tipurić & Krajnović, 2020). Normative isomorphism on the other hand suggests convergence through socialisation “whereby this isomorphic relates to influence from professional bodies and consultants operating in the field” (Ahmad, 2015: 98). Depoers and Jérôme (2019) and Jaja et al. (2019) suggest that normative institutions acknowledge the influences from organisation and individual are exposed from educational organisations, professional bodies, trade associations, industry groups, interest groups and public opinion.

The institutional theory identifies the importance of culture, institutions, and laws in determining corporate behaviour such as top management hiring policy, management accountability, board effectiveness, financial reporting, and the relationship between firms and investors (Alvesson & Spicer, 2019). From the Institutional Theory perspective, the IP regime of a country influences the quality of management employed by firms and the accountable nature of firms' management through coercive, normative or mimetic isomorphism. This assertion has been confirmed in the literature. Kobbi-Fakhfakh et al. (2020) studied the relationship between institutions, more specifically property right protection, and the structure of corporate boards in China and found that weak property right protection is linked positively with both the size and the number of outsiders in a corporate board. In analysing firm-level governance, Aggarwal et al. (2008) and Garcia-Sanchez and Noquera-Gamez (2018) find a positive relationship between investor protection

regime of jurisdiction and firm-level corporate governance. According to them, the boards of directors of firms in weak investor protection countries appear to be less independent compared to firms in a stronger investor protection environment. Adeoye (2013) postulates that country's regulatory regime and enforcement system may be a prerequisite to improving the internal governance mechanism of firms in SSA. Isaboke and Naziri (2018) provide evidence that, in a jurisdiction with a strong and stricter investor protection regime, firms have boards with optimal size and composition. Empirical research has not sufficiently examined how investor protection relates to management quality.

Studies such as Bratten et al. (2019) and Raimo et al. (2019) used the Institutional Theory to explain the financial reporting behaviour of firms. Bratten et al. (2019) used the Institutional Theory to formulate the hypothesis for the relationship among audit firm tenure, bank complexity and FRQ whereas Raimo et al. (2019) used the Institutional Theory to hypothesise the influence of national culture influence integrated reporting quality. Many other studies such as Mion and Loza Adau (2019) and Hesarzadeh (2019) have used the Institutional Theory to explain the financial reporting behaviour of firms and its implications. Ferrero (2014) used the Institutional Theory to explain the role of the level of corruption, adoption of IFRS, accounting system and economic cycle in the financial reporting behaviour of firms. It is therefore argued that, notwithstanding the Agency Theory postulation that organisational phenomena are driven by individuals' pursuit of self-interest maximisation and the asymmetry of information lead to concealment of opportunistic tendencies through fraudulent financial reporting, the institutional theorist maintains that individuals' behaviour cannot be abstracted from the social and institutional setting as well as the legal regime in which individual actions take place. Companies are economic units operating in a context formed by institutions that affect their behaviour and impose expectation (Campbell, 2007). Auditing and financial reporting behaviour of firms will be guided by law, regulation, institutional quality, culture and other investment protections variable through coercive isomorphism and professional ethics and values through normative isomorphism as well the financial reporting behaviour and practices other firms and government through mimetic isomorphism.

This theory is considered appropriate for this study because it explains the role of institutions, law and regulations on the behaviour of firm through Coercive and normative isomorphism. The

Institutional Theory has several implications relating to the possible context-dependence of FRQ of firms and audit quality. For example, in a jurisdiction with quality laws, institutions, and enforcement system or strict IP regime, firms are more exposed to a high risk of litigation and cost, and one might expect coercive pressures to contribute to its practice. Consequently, risk of litigation and disciplinary sanction emanating from a strong IP regime are supposed to ensure MgtQ, audit quality and consequential FRQ

2.2.3 Upper Echelon Theory

Hambrick and Mason (1984) and Hambrick (2007) Upper Echelon Theory provides the theoretical foundation in establishing the relationship between management characteristics and organisational outcome or behaviour. The Upper Echelon Theory is based on the notion that organisational behaviour is a reflection of the characteristics of its management. Hambrick and Mason (1984:193) surmise that “some organisational outcomes - both strategies and effectiveness - are viewed as reflections of the values and cognitive bases of powerful actors in the organization”. These powerful actors are the top executive or senior management (referred to as the Upper Echelons). The Theory, therefore, suggests that organizational outcomes, strategic choices and performance levels are partially determined by the characteristics and background of persons at the senior management level (Hambrick & Mason, 1984). These characteristics and background include the experiences, qualifications, values, association and personalities of the top senior management executives.

The Upper Echelon Theory is underpinned by two interrelated views: (a) top management actions and choices are constructs of their interpretation of the strategic circumstances they are exposed to; and (b) these individual constructs are a function of management personality, qualification, experience and values.

Researchers such as Kalkhouran et al. (2017), Gounopoulos and Pham (2018), García-Meca and García-Sánchez (2018), Pavlatos and Kostakis (2018), Bassyouny et al. (2020) and Rashid (2020) have employed the Upper Echelon Theory to investigate the implications of some management attributes on corporate outcomes such as performance, accounting policy choices, FRQ among others. For example, studies by Pavlatos and Kostakis (2018) and García-Meca and García-Sánchez (2018) corroborate the Upper Echelon theory by postulating that senior management

attributes (for example, personality, educational and professional background, and tenure) can influence to some extent the choices of management, particularly accounting policies. Consequently, professional managers in a senior management position are more expected to be persuaded by their education, training, values and ethics that are inculcated by their professional bodies, to make an appropriate decision and exercise prudent judgement concerning the financial reporting process of an entity than non-professional managers.

Similarly, Bassyouny et al. (2020) investigate how top management characteristics influence the narrative tone in the UK context using the Upper Echelon Theory. Confirming the Upper Echelon Theory, the study finds that both observed and unobserved CEOs characteristics determine the positive tone and this relationship is controlled by corporate governance features. Their finding confirms that the characteristics of top management personnel determine the general atmosphere in which a firm operates. In an entity where professionals are employed in a top management position, a proper tone is set at the top and this affects positively financial reporting processes and the overall internal control environment for proper and reliable financial reports and compliance with laws, regulations and standards. As such FRQ will be enhanced in such an environment (Feng et al., 2011). According to Gounopoulos and Pham (2018), the professionalism of top management enables them to work together effectively in the development of sound accounting policies. Besides, ProMgt is a guided professional code of conduct issued by the professional body, which motivates them not intentional misstate financial outcome to mislead investors.

Kalkhouran et al. (2017) also confirm the Upper Echelon Theory in their investigation of the effect of senior management attributes on the choice of internal control systems. In accounting literature, Choi et al. (2015) suggest that top management through their operating decisions can manage earnings. García-Meca and García-Sánchez (2018) also confirm that managerial ability is instrumental in firms' financial reporting process outcome and the quality of the accounting information produce therefrom. These perspective are underscored by the Upper Echelon Theory as they show that managers attributes determine some extent how management interpret external environment to make corporate financial reporting choices.

Based on the foregoing arguments, this study adopts the Upper Echelon Theory to investigate the relationship between MgtQ and FRQ. The use of this Theory is justified because several prior studies have documented that the professionalism of management (Rashid 2020) and the

accountability of the board to investor (independent directors) (Safkaur et al., 2019; Reid et al., 2019) can affect FRQ.

2.2 Empirical Literature Review

2.2.1 Empirical Measure of FRQ

The purpose of financial reports and the qualities that accounting information must exhibit to be useful to key stakeholders are provided by the IASB in the IFRS' Conceptual Framework for Financial Reporting (IFRS'CF). This framework provides that "the objective of general-purpose financial reporting is to provide financial information about the reporting entity that is useful to exist and potential investors and creditors investors, lenders and other creditors in making decisions relating to providing resources to the entity" (IFRS, 2018:8). The principal qualitative characteristics of financial information have been categorised in the IFRS'CF into "relevance" and "faithful representation". The IASB expatiates that accounting information is relevant when it has the potential to make a difference in (or affect) the decisions of investors and other stakeholders. Relevant accounting information exhibits 'confirmatory' or 'predictive' value or both (IFRS, 2018). The IASB suggest that accounting information must not exclusively depict relevant phenomena to be useful to investors and other stakeholders, but must represent faithfully the substance of the phenomena that it seeks to delineate. Faithful representation of accounting information demands that the accounting information represented in the financial reports delineate the real-world economic phenomena that it seeks to depict. A faithfully represented relevant accounting information are what define the quality of the information presented and also determines the extent to which a financial statement is functional to investors. Accordingly, Ferrero (2014) elucidates that FRQ means the relevance and faithfulness of the accounting information represented by the financial reports.

The IASB further expatiates in IFRS (2018) that to faithfully represent corporate economic phenomena, quality financial reports must present complete, neutral and error-free accounting information. A complete representation of economic phenomena captures fully all the information required for investors and other stakeholders to comprehend the phenomena that are being represented including all essential description and explanation of the phenomena. Neutral accounting or financial information is devoid of prejudice in the choice of accounting policies and

estimates and or the presentation of accounting information. Representations of accounting information that is not slanted, weighted, emphasized, de-emphasized or that is intentionally manipulated to enhance its favourable or unfavourable acceptance by investors and other stakeholders are regarded as neutral.

Quality financial information is also devoid of errors and omissions in the description of the economic occurrences, and it is produced by processes and policies selected and applied consistently without errors. To achieve the purpose of financial reports and to make financial reporting adequate for a particular environment, firms are required to optimise the qualitative elements of accounting information in such a way that best meets the purpose of the reported accounting information. Van Greuning et al. (2011) corroborate that the implementation of the required principal qualitative features and the appropriateness of accounting standards and policies normally lead to financial reports that show a true and fair view of the financial position, performance, cash flow and changes in equity of an entity.

FRQ has been acknowledged as an indeterminate concept in the accounting literature (Bloland & MacNeil, 2019). Consequently, researchers have not reached a consensus on how best to measure FRQ as various proxies have been used in the accounting literature as indicators of FRQ. From literature, the quality of accounting information presented in financial reports have been judged from several perspectives including the degree of earnings persistence, predictability of future performance, earnings variability, and the relation between cash, accruals and income and prior research such as Choi and Pae (2011) Ferrero (2014) Martínez-Ferrero and García-Sánchez (2016) and Isidro et al. (2020) have summarised these indicators into three complementary measures of FRQ which are earnings management (EM), accounting conservatism (AC) and accrual quality (AQ)

2.2.1.1 Earnings Management (EM)

The first measure of FRQ found in literature is the degree EM using accruals, that is, management discretion over accruals. From the perspective of Davidson et al. (1987), EM is instituting deliberate measures or adopting accounting policies within the confines of generally accepted accounting principles to report a desired level of earnings. Schipper (1989: 92) suggest that EM is “a purposeful intervention in the external financial reporting process, with the intent of obtaining

some private gain (as opposed to say, merely facilitating the neutral operation of the process)". These definitions have been corroborated by Healy and Wahlen who indicate that EM occurs "when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers" (Healy & Wahlen, 1999: 368). These definitions of EM connote management accounting choices including the structuring of transactions or timing of investment and financing decision undertaken with the main objective of achieving a desired accounting reporting outcomes. Yung and Root (2019) summarise EM as managers choices and policies that are at variance from accounting standards and best practices, such that investors are misled of the underlying economics of the firm's business.

Two main perspectives on EM are provided in the accounting literature: the opportunistic and the information perspective (Arioglu, 2020; Putra & Mela, 2019; Draief, 2019). EM is regarded as opportunistic when it is undertaken to meet or beat earnings targets to delude investors. On the other hand, EM is informative when it purports to communicate prospects and good financial situation to investors (Draief, 2019). However, extant research has largely established EM from an opportunistic perspective even though studies such as Draief (2019) and Arioglu (2020) tested the informative perspective of EM. Accounting literature largely recognises that firms manage earnings to either shore up reported earnings or conceal deteriorating performance and for that matter, a typical inference in contractual studies is that incentives results in de-facto opportunism. EM is therefore considered as intentional misstatements in the financial report and therefore constitute fraud.

Accounting literature measures EM by the level of discretionary accrual (DA). As observed by Shoaib and Siddiqui (2020) and Sun (2020) accounting accruals are not all discretionary and therefore to determine the degree of EM, the discretionary component of total accrual (TA) ought to be separated from the non-discretionary (non-DA) component. As a result, to determine DA requires that TA is estimated and a model adopted to generate the non-DA component. This enables TA to be fragmented into a DA and non-DA. EM as an indicator of accounting manipulation is therefore measured by the discretionary components of accrual adjustment (Ferrero, 2014). The DA adjustment is derived by subtracting the non-DA adjustment from the TA

adjustment. The DA adjustment represents the abnormal accruals that constitute the variable taken as a measure of EM.

From literature, some of the model used by extant literature in generating non-DA are the Healy (1985) Model, the DeAngelo (1986) Model, the Jones (1991) Model, the modified Jones (1991) Model, the Dechow et al. (1995) model, and the Kothari et al. (2005) Model. These models are briefly discussed to trace the trajectory in the measurement of EM in accounting literature.

The Healy Model of EM

The Healy (1985) model determines EM by relating the mean TA (scaled by lagged total assets) across EM partitioning variable. This study is at variance with most other EM studies by predicting that systematic EM occurs in every period. Expatiating on Healy's model, Dechow et al. (1995) suggested that Healy's partitioning variable groups the sample into three were in one of the groups, earnings are predicted to be earnings upwards and in the two other groups earnings are predicted to be managed downwards. A pairwise comparison of the mean TA of the two clusters is used to make inferences. The mean TA from the estimation period represents the measure of non-DA. This is summarised in equation (1) below:

$$NDA_{\tau} = \sum_t TA_t / T \quad (1)$$

where NDA is estimated non-DA; TA is total accruals scaled by lagged total assets; t is the year subscript for the period included in the estimation, and τ is a year subscript indicating a year in the event period.

DeAngelo Model of EM

DeAngelo (1986) suggested modified Healy's model for EM by figuring first differences accrual on the assumption that under a hypothesis of no EM, the first differences have an expected value of zero. DeAngelo's model as formulated in equation (2) uses the last period's TA (scaled by lagged total assets) to measure non-DA

$$NDA_{\tau} = TA_{\tau-1} \quad (2)$$

This model has been considered as a special case of the Healy model with the estimation period for non-DA restricted to the previous year's observation. A common feature of Healy and

DeAngelo models is the use of TA from the estimation period as an indicator for expected non-DA. Dechow et al., (1995:198) indicate that “If non-DA are constant over time and DA have a mean of zero in the estimation period, then both the Healy and DeAngelo Models will measure non-DA without error. If, however, non-DA change from period to period, then both models will tend to measure non-DA with error”. Nonetheless, the nature of the time-series process deriving non-DA determines the appropriateness of one model over the other. Dechow et al. (1995) recommended that where non-DA follow a “white noise process around a constant mean”, then the Healy Model is appropriate. However, the DeAngelo model is deemed appropriate if non-DA follow a “random walk”.

Jones Model of EM

Jones (1991) which is regarded as the most widely used model in the studies of aggregate accruals advanced the estimation of TA that encapsulate more DAs from various current operating accounts. The Jones model lessens the assumption of constant non-DA and also control for the effect of changes in a firm’s economic situations on non-DA. The Jones model is based on the presupposition the exercise of managerial discretion and changes in a firm's economic circumstances result in accrual. In this model, TA is related to change in revenue (ΔREV) and gross property, plant and equipment (PPE). According to Jones, ΔREV would lead to a change in operating capital (OC), which will, in turn, cause a change in accruals, and the depreciation on non-current assets would reduce accruals. Consequently, Jones uses ΔREV and PPE, as independent variables to predict the DA. The Jones Models for non-DA in the event year is detailed in equation (3):

$$NDA_{\tau} = \alpha_1 \left(\frac{1}{A_{\tau-1}} \right) + \alpha_2 (\Delta REV_{\tau}) + \alpha_3 (PPE_{\tau}) \quad (3)$$

where: ΔREV_T is revenues in year t minus revenues in year $t-1$ scaled by total asset in year $t-1$; PPE_T is the gross property, plant and equipment in year t scaled by total assets at $t-1$; A_{T-1} is total assets at $t-1$; and $\alpha_1, \alpha_2, \alpha_3$ are firm-specific parameters which are generated using the following model in the estimation period:

$$TA_t = a_1 \left(\frac{1}{A_{t-1}} \right) + a_2 (\Delta REV_t) + a_3 (PPE_t) + \eta_t \quad (4)$$

Where: a_1 , a_2 and a_3 denote the OLS estimates of α_1 , α_2 , and α_3 and TA is total accrual scaled by lagged total assets.

Dechow et al. Model of EM

In their empirical analysis of EM, Dechow et al. (1995) proposed a modification to the Jones Model. Dechow et al. modified the Jones model attempt to obliterate the conjectured tendency of the Jones Model to measure DA with an error when discretion is exercised over revenue. In their model, the non-DA is estimated during the event period as shown in equation (5):

$$NDA_{\tau} = \alpha_1 \left(\frac{1}{A_{\tau-1}} \right) + \alpha_2 (\Delta REV_{\tau} - \Delta REC_{\tau}) + \alpha_3 (PPE_{\tau}) \quad (5)$$

where: ΔREC_{τ} = change in net receivable computed as current net receivables minus previous net receivables scaled by lagged total assets

Relative to the Jones model, the only medication introduced by Dechow et al. is that the ΔREV is adjusted for change in receivable (ΔREC) in the event period. This implies that contrary to the original Jones model which assumed that discretion is not exercised over revenue in either the estimation or event periods, the Dechow et al. model relaxes such assumption and thus include all changes in credit sales in the event period indicating that managers exercise discretion over the recognition of revenue on credit sales. Based on this modification EM should no longer be biased toward zero in samples where EM has taken place through the management of revenues.

Kothari et al EM Model

In their analysis of performance-matched DA measure, Kothari et al. (2005) proposed a modification to the Jones original model by incorporating performance (measured by Return on Asset [ROA]) and a non-deflated constant. In their proposed model, all variables are deflated by the lagged total assets and are computed by cross estimation except the constant. The inclusion of ROA is to control for the effect of performance on accrual which has been established in the literature. The Kothari et al. model is specified in equation (6) and (7).

The Kothari model measures TA as

$$\frac{TA_{it}}{A_{it-1}} = \beta_0 \frac{1}{A_{it-1}} + \beta_1 \frac{\Delta REV_{it}}{A_{it-1}} + \beta_2 \frac{PPE_{it}}{A_{it-1}} + \beta_3 \frac{ROA_{it}}{A_{it-1}} + \varepsilon_{it} \quad (6)$$

Where, TA_{it} is the total accruals, ΔREV_{it} the change in revenues, PPE_{it} property, plant and equipment; A_{it-1} is lagged total assets for year $t - 1$, ROA_{it} is the return on assets for year $t - 1$.

In this model, change in working capital or current accrual is explained by ΔREV and PPE explains noncurrent accrual (mostly depreciation). Based on the TA equation (6), DA is determined by the residual of the estimated TA models as:

$$DA_{it} \equiv \frac{TA_{it}}{A_{it-1}} - \beta_0 \frac{1}{A_{it-1}} + \beta_1 \frac{\Delta REV_{it}}{A_{it-1}} + \beta_2 \frac{PPE_{it}}{A_{it-1}} + \beta_3 \frac{ROA_{it}}{A_{it-1}} \quad (7)$$

2.2.1.2 Accounting Conservatism (AC)

Accounting conservatism (AC) has been regarded as a basic accounting principle for centuries and it is imperative to feature the financial reporting process for quality financial reporting. The principle underpinning AC is that firms must provide for all losses but must anticipate no profit. To wit, all expenses are to be recognised where there is a reasonable possibility that it will be incurred but revenue is recognised only when there is reasonable certainty that it will be realised. According to the Financial Accounting Standard Board (FASB) AC is about how prudently firms react to uncertainties in accounting to ensure adequate financial reporting control for the inherent uncertainties and risk in business. The principle of AC dictates the use of less optimistic estimates where two amount estimated to be received and paid in the future are of equal likelihood. The FASB, therefore, provide a general interpretation of AC to mean the degree of restraints in the exercise of judgements required in projecting condition of uncertainty to avoid overstating assets and income or understating liabilities and expense in financial reporting.

In his analysis of the principle of AC and asymmetry timeliness of earning, Basu (1997) suggested that under AC, there is a higher verification requirement for recognising good news relative to bad news in financial statement and that earnings must reflect bad news more than good news. Basu's exposition accounts for various types of economic income and emphasizes the timeliness of recognising economic losses, which is called conditional conservatism. Basu (1997:14) therefore defined AC as "a downward bias in the accounting net asset value relative to the economic net asset value arising from an incomplete and inconsistent recognition of economic value in

accounting earnings”. To be prudent and ensure optimal AC, accounting policies must ensure recognition of the lowest value among possible alternative values for assets and the highest alternative value for liabilities. Further, revenue should be recognised later than sooner, and expenses, sooner than later. The critical nature of AC in financial reporting makes it an indispensable character in measuring FRQ. As such researchers such as Choi and Pae (2011); Ferrero (2014) and Isidro et al. (2020) adopt AC as one of their three measures of FRQ.

Beaver and Ryan (2005) developed a model that captures the distinct nature of conditional and unconditional conservatism. They explain that “under unconditional conservatism, the book value of net assets is understated due to predetermined aspects of the accounting process. Under conditional conservatism, book value is written down under sufficiently adverse circumstances, but not up under favourable circumstances”(Beaver & Ryan, 2005: 269). Ruch and Taylor (2015) explicate that, unlike unconditional conservatism, the application of conditional conservatism is driven by economic news events. According to them, a timelier recognition of negative economic news than positive economic news (the asymmetric recognition of positive and negative economic news) by the accounting system shows the occurrence of conditional conservatism. On the other hand, a consistent under-recognition of net assets is an indication of unconditional conservatism. Beaver and Ryan indicate that, even though both types of conservatism lead to a downward bias in accounting value, such downward bias of values emanate from different accounting policies and practices. Nonetheless, relative to the market value of equity, accounting book value is understated in both conditional and unconditional conservatism (Ahmadi & Bouri, 2016).

Asymmetric Timeliness of earnings Measure

The Asymmetric Timeliness of earnings (ATE) model developed by Basu (1997) measures AC based on how the economic income, which is proxied by the market return is asymmetrically associated with the accounting earnings. The main focus of Basu’s model was on how quickly bad news will be incorporated into earnings relative to good news. Since market prices of share is a reflection of available market information which is obtainable from multiple sources other than current earnings, changes in stock price is an indication of news arrival for a certain period (Ahmadi & Bouri, 2016). The timeliness or responsiveness of reported earnings to stock returns is reflected in the coefficient of the stock market. The degree of AC is deduced from the differences

in the timeliness of reported earnings between bad news and good news. Higher asymmetric timeliness is an indication of a greater level of AC and vice versa. Basu used cross-sectional regression to assess the degree of AC as specified in equation (8):

$$\frac{EPS_{it}}{P_{it}} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} DR_{it} + \varepsilon_{it} \quad (8)$$

Where EPS_{it} is earnings per share for firm i in year t ; P_{it} is the beginning stock market price for firm i in year t ; R_{it} is stock market returns for firm i in year t , and DR_{it} is a stock market return dummy which is equal to 1 if the stock market returns for firm i in year t is negative, and equal to 0 if the stock market returns for firm i in year t is not negative.

Basu (1997), in principle regress accounting earnings per share (EPS/P) on stock market returns (R) for good news and bad news separately. Where the market return is greater or equal to zero ($R_{it} \geq 0$), a firm year is regarded as good news. Where market return is less than or equal to 0 ($R_{it} < 0$), a firm-year is considered as a 'bad news'. The coefficient measures the timeliness with which news embodied in the stock returns is incorporated into earnings, depending on the type of news. The ATE model separate 'good news' from 'bad news' using the DR dummy variable, which permits the slope coefficient and the intercept to differ between 'good new' and 'bad new'. For 'good news', ($R_{it} \geq 0$), DR is 0 and the good news timeliness coefficient is β_1 . However, under 'bad news' ($R_{it} < 0$), DR is 1 and the 'bad news' timeliness coefficient is $\beta_0 + \beta_1$. β_1 is the asymmetric timeliness coefficient and it the primary AC indicator variable. A higher β_1 is an indication of higher AC.

Basu's ATE model has been widely acclaimed by accounting researchers to have produce results that are consistent with their theoretical prediction thereby increasing the confidence of accounting researchers in their theory and measure (Albuquerque et al., 2019). It is further argued Basu's model is well suited for large-sample cross-sectional analysis since it was based on large scale international comparative studies. However, Basu's model is said to show poor performance in time-series research design and for that matter, it may be a biased estimator of the degree of AC with the tendency of being biased upward. Ball and Shivakumar (2005) also indicated that since private firms do not have quoted market price, Basu's model may not be suitable for private companies. These notwithstanding, research acknowledged that with a more robust control for the

confounding factors, ATE model can be a greatly valid and useful measure of AC (de Castro Gonçalves et al., 2020).

Asymmetric Accrual to Cash Flow

The asymmetric Accrual to Cash Flow (AACF) model was developed by Ball and Shivakumar (2005) to fill the gap identified in the suitability of Basu's model for only publicly traded firms. The AACF model is developed to measure the degree of AC in private firms that do not have quoted market prices. The AACF measure is regarded as a 'non-stock market version of the ATE model by Basu and it is based on the cross-section regression model in equation (9).

$$ACC_t = \beta_0 + \beta_1 DCFO_t + \beta_2 CFO_t + \beta_3 DCFO_t * CFO_t + \varepsilon_t \quad (9)$$

Where: ACC_t is Accrual computed as the change in inventory + change in debtors + change in other current assets – change in creditors – change in other current liabilities – Depreciation; CFO_t = Cash flow for the period t ; $DCFO_t$ is a dummy variable that is set at 0 if $CFO_t \geq 0$ and set at 1 if $CFO_t < 0$.

Just like the Basu ATE model, the AACF model is based on the same fundamental principle of asymmetric timeliness and are estimated from models with a very similar structure. Except that in the AACF model, the accrual component of total earnings was used. This was because AC primarily affects the accruals component of earnings instead of the cash flows component. Albeit accounting literature appears not to have discussed the pro and cons of the AACF model, considering its similarities with the ATE model, they may suffer from similar weaknesses.

Market-to-Book or Book-to-Market ratios

The Market-to-Book (MTB) or the Book-to-Market (BTM) ratio is regarded as another measure of AC in recent literature. The MTB (BTM) hinges on the fundamental presumption that, holding other things constant, relative to a firm's true economic value, the net book value of a firm is depressed by AC policies. Therefore a higher MTB (and a lower BTM) is an indication of a higher degree of AC and vice versa.

According to Beaver and Ryan (2005), the MTB is based on the analytical work of the Residual Income Valuation Model. They then develop a refined BTM as a measure of AC which has been applied widely in accounting literature. Beaver and Ryan refined BTM is decomposed into the bias component and the lag component with the bias component of BTM regarded as a measure of AC. Beaver and Ryan decomposed BTM by regressing BTM on a series of lagged stock return up to six lagged year in a fixed-effect panel data regression as follows:

$$BTM_{t,i} = \alpha_t + \alpha_i + \sum_{j=0}^6 \beta_j R_{t-j,i} + \varepsilon_{t,i} \quad (10)$$

where: $BTM_{t,i}$ is the Book-to-Market (BTM) ratio of company i , at the end of year t ; α_t is year-to-year variation in BTM general to the sample firms; α_i is the bias component of BTM for firm i ; $R_{t-j,i}$ is the returns on equity (ROE) over each of the six preceding years and β_j is regression coefficient on $R_{t-j,i}$.

Beaver and Ryan indicate that the *bias* component of BTM, α_i is a more accurate measure of a firm's level of AC than the raw BTM. In general, the MTB (or BTM) measure has been used in literature to estimate the degrees of ‘unconditional’ AC, as opposed to ‘conditional’ AC.

Modified Asymmetric Timeliness

Khan and Watts (2009) suggested a variation to Basu’s ATE measure of AC. In their proposal, AC is measured using a two-step procedure. The following cross-sectional regression is estimated in the first step:

$$\begin{aligned} \frac{E_{it}}{P_{it-1}} = & \alpha_0 + \alpha_1 DR_{it} + \beta_{1t} SizeMVE_{it} + \beta_{2t} MTB_{it} + \beta_{3t} LEV_{it} + DR_{it}(\delta_0 + \delta_{1t} SizeMVE_{it} + \\ & \delta_{2t} MTB_{it} + \delta_{3t} LEV_{it}) + R_{it}(\lambda_0 + \lambda_{1t} SizeMVE_{it} + \lambda_{2t} MTB_{it} + \lambda_{3t} LEV_{it}) + R_{it} \times DR_{it}(\mu_0 + \\ & \mu_{1t} SizeMVE_{it} + \mu_{2t} MTB_{it} + \mu_{3t} LEV_{it}) + \varepsilon_{it} \end{aligned} \quad (13)$$

where $\frac{E_{it}}{P_{it-1}}$ is the net profit scaled by the lagged market value of equity; R_{it} is the yearly stock return for the 12 months closing 3 months after the end of the fiscal year; DR_{it} is a dummy variable which takes the value of 1 when the yearly stock return is negative ($R_{it} < 0$), $SizeMVE$ is the natural log of the market value of shares, MTB is the Market-to-Book ratio, and LEV is the firm financial leverage.

Piece-wise regression which allows for the difference in the timeliness of earnings in reflecting good news versus bad news is adopted. DR_{it} is an indicator for the incremental effect of bad news above good news. $R_{it}(\lambda_0 + \lambda_{1t}SizeMVE_{it} + \lambda_{2t}MTB_{it} + \lambda_{3t}LEV_{it})$ is the timeliness of earning in reflecting good news and those associated with $R_{it} \times DR_{it}(\mu_0 + \mu_{1t}SizeMVE_{it} + \mu_{2t}MTB_{it} + \mu_{3t}LEV_{it})$, is the incremental timeliness of earnings concerning "bad news" above the timeliness of earnings concerning good news. Therefore, the timeliness of earnings concerning bad news is inferred by the sum of $(\lambda_0 + \lambda_{1t}SizeMVE_{it} + \lambda_{2t}MTB_{it} + \lambda_{3t}LEV_{it})$ and $(\mu_0 + \mu_{1t}SizeMVE_{it} + \mu_{2t}MTB_{it} + \mu_{3t}LEV_{it})$.

using the coefficient estimated from the first stage regression, a firm-year-specific measure of the timeliness of earnings concerning conservatism (C_Score) and bad news (B_Score) is calculated in the second step.

$$C_Score_{it} = \hat{u}_{0t} + \hat{u}_{1t}SizeMVE_{it} + \hat{u}_{2t}MTB_{it} + \hat{u}_{3t}LEV_{it} \quad (14)$$

$$B_Score_{it} = \hat{\lambda}_{0t} + \hat{\lambda}_{1t}SizeMVE_{it} + \hat{\lambda}_{2t}MTB_{it} + \hat{\lambda}_{3t}LEV_{it} + \hat{u}_{0t} + \hat{u}_{1t}SizeMVE_{it} + \hat{u}_{2t}MTB_{it} + \hat{u}_{3t}LEV_{it} \quad (15)$$

AC is measured by C_Score according to Ferrero (2014). But as an alternative measure, the timeliness of reported earning incorporating bad economic news (B_Score) is used. This is because shareholders are more interested in the timeliness of earnings reflecting bad news.

2.2.1.3 Accrual Quality (AQ)

AQ as the final dimension of FRQ concerns the accuracy with which accruals predict related future operating cash flow of a firm. Accrual and other provisions create a distinction between earnings and operating cash flow. Therefore the quality of accrual is determined by the accuracy by which it predicts associated future operating cash flows.

Dechow and Dichev (2002) suggest a firm-level measure for AQ as specified in equation (16)

$$\frac{\Delta WC_{it}}{AvgA_{it}} = \beta_0 + \beta_1 \frac{CFO_{it-1}}{AvgA_{it}} + \beta_2 \frac{CFO_{it}}{AvgA_{it}} + \beta_3 \frac{CFO_{it+1}}{AvgA_{it}} + \epsilon_{it} \quad (16)$$

In this equation, ΔWC is the variation in working capital accrual CFO represent the cash flow from operating activities of the firm, and $AvgA$ represents the average total assets during the period.

Ball and Shivakumar (2006) proposed a model to obtain an alternative measure of AQ. They suggested that nonlinear accrual models that incorporate the timely recognition of losses perform better than a linear model. Taking into consideration Ball and Shivakumar (2006) model, Ferrero (2014) recommended the inclusion of the current-year cash flow dummy variable and its interaction with cash flow levels into the Dechow and Dichev model for a more robust measure of AQ. The refined AQ model is provided in equation (17)

$$\Delta WC_{it} = \beta_0 + \beta_1 OCF_{it-1} + \beta_2 OCF_{it} + \beta_3 OCF_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \beta_6 DOCF_{it} + \beta_7 OCF_{it} * DOCF_{it} + \varepsilon_{it} \quad (17)$$

Where ΔWC_{it} is the variation in working capital accrual from year $t-1$ to t ($\Delta Accounts Receivable + \Delta Inventory - \Delta Accounts Payable - \Delta Taxes Payable + \Delta Other Assets$); OCF_{it} is the operating cash flow for time t and company i ; ΔREV_{it} is the variation in revenues; $DOCF_{it}$ is a negative cash flow indicator variable which takes the value of 1 if there are negative OCF and 0 otherwise. All variable (except $DOCF_{it}$) are scaled by the total assets. AQ is measured as the absolute value of the residual from this model. The lower the degree of this proxy the higher the level of AQ.

2.2.1.4 Country-level measure of FRQ

Tang, Chen and Lin (2016) developed a country-level measure for FRQ. Their measure was based on the view that the main actors in firms financial reporting process is managers who are in charge of the preparation and auditors who assure investors of the validity of the report. Based on this presumption, Tang et al. proposed six dimensions of accounting and auditing quality to formulate a national FRQ index for stock markets. These six dimensions according to Tang et al comprises the Loss avoidance ratio (LAR); Profit decline avoidance ratio (PDAR); Accruals ratio (AR); Qualified audit opinion ratio (QAOR); Non-Big4 auditor ratio (NBAR); and Audit-fees ratio (AFR). According to them these six dimensions together provide an indication of the level of FRQ in a particular stock market for a period. The six dimensions and their measurement are explained:

LAR is a measure of EM. Tang et al indicate that managers are incentivised to manage corporate earnings to portray a favourable corporate performance to maximise their employee benefits and secure their employment with the firm. This incentive emanates from the use of simple and explicit earnings-based benchmark by an investor to assess a firm's economic performance and financial

position. Such EM behaviour deteriorates firms' FRQ by obscuring the link between accounting earnings and a true firm's economic performance. Among other motivation, EM is undertaken to avoid reporting losses. LAR for capital market k in year t is measured as follows:

$$LAR_{k,t} = \frac{\text{Total Number of Small Profit Firms}_{k,t}}{\text{Total Number of Small Loss Firm}_{k,t}} \quad (20)$$

In this equation, small profit (small loss) firms are defined by the researchers as firms with net income scaled by lagged total assets between 0% and 1% (between -1% and 0%). A higher LAR ratio is an indication of a higher degree of EM and therefore poor quality financial reporting and vice versa.

PDAR is based on the proposition that firms are priced with a premium when they experience a consecutive increase in profit, and that a decline in profit leads to a sharp fall in the premium. That is firm experience a substantial decline in stock price when it experiences a break in the pattern of consistent earnings growth. To avoid a break in earning pattern, managers have the tendencies to smoothing earnings growth pattern in a fictitious manner that will affect the quality of firm financial reports. Tang et al., measures the PDAR for capital market k , year t as follows:

$$PDAR_{k,t} = \frac{\text{Total Number of Small Profit Increase Firm}_{k,t}}{\text{Total Number Small Profit Decrease Firm}_{k,t}} \quad (21)$$

where small-profit-increase (decrease) firms are defined by them as firms with changes in net income scaled by lagged total assets between 0 and 0.005 (between -0.005 and 0)

In the Tang et al model AQ which have been used in literature as a measure of earnings aggressiveness is measured by **AR**. The magnitude of accruals is an indication of how aggressive or conservative a firm accounting policies and estimates are. A conservative accounting policy ensures early recognition of loss and delays recognition of profit under the condition of uncertainty. Aggressive accounting policy on the other hand delays loss recognition but accelerate the recognition of profit. It has been argued that AC is a timelier recognition of economic losses into accounting earnings than economic gains, and such AC practices ensure symmetrical information between managers and investors. Tang et al suggest that, If cash flow is to be held

constant from operations, accruals are expected to increase as earnings aggressiveness increases. Tang et al. (2016) measure the AQ using total accruals divided by lagged total assets as formulated below:

$$AR_{k,t} = \frac{(\Delta CA_{i,t} - \Delta Cash_{i,t}) - (\Delta CL_{i,t} - \Delta STDEBT_{i,t} - \Delta TP_{i,t}) - Dep_{i,t}}{TA_{i,t-1}} \quad (22)$$

where $\Delta CA_{i,t}$ represents a change in current assets for firm i at year t , $\Delta Cash_{i,t}$ represent the change in cash for firm i at year t , $\Delta CL_{i,t}$ represent the change in current liabilities for firm i at year t , $\Delta STDEBT_{i,t}$ equal the change in short-term debt included in current liabilities for firm i at year t , $-\Delta TP_{i,t}$ is equal to the variation in income taxes payable for firm i at year t , $Dep_{i,t}$ is the depreciation and amortisation expenses for firm i at year t and $TA_{i,t-1}$ is the total assets for firm i at year $t - 1$. The median observation of firm-level AR (rather than the average to avoid or minimise the influence of extreme values) of firms in a capital market is used for this variable (Leuz et al., 2003). A smaller AR is an indication of a reduction in managerial discretion and EM, and therefore, a higher FRQ.

QAOR is an indicator variable for auditors evaluation of firms accounting system and the validity of assertions in the financial reports. Investors use the financial report for decision making by auditors to verify its credibility. Auditing is supposed to mitigate the asymmetry of information between corporate insiders and investors and therefore form an integral part of the financial reporting mechanism. The audit opinion is therefore key in evaluating a firm accounting system. Holding audit quality constant, a qualified audit opinion is prima facie evidence of low FRQ. Therefore, the fourth indicator of FRQ according to Tang et al (2016) is:

$$QAOR_{k,t} = \frac{\text{Total number of qualified audit opinions}_{k,t}}{\text{Total number of the auditees}_{k,t}} \quad (23)$$

NBAR is a measure of audit quality. Tang et al. (2016) indicate that the qualities of the auditors where audit report emanates are a key consideration when comparing the proportion of qualified audit opinions between to stock market. An unqualified opinion may be issued without rigorous substantive testing by a low-quality auditor. Consequently, NBAR, as a measure of audit quality also measures FRQ. A high-quality financial report is expected from a firm that engages high-

quality auditors. Albeit no audit firm is immune from audit risk and audit failure, it is generally acknowledged that Big4 audit firm is more independent and more experienced than non-Big4 audit firm. Therefore Big4 is associated with more quality audit. Since Big4 auditors are more likely to be prudent to protect their brand as they are more susceptible to reputational risk in the event of audit failure, they are expected to provide high-quality audit and restrain financial reporting manipulation than non-Big4 auditors. The fifth indicator of FRQ according to Tang et al., (2016) is the NBAR which is formulated as follows:

$$NBAR_{i,t} = 1 - \frac{\text{Total number of firms that are audited by Big Four auditors}_{k,t}}{\text{Total number of the auditee}_{k,t}} \quad (24)$$

AFR is measured as the ratio of audit fees to total assets. *AFR* is premised on the idea that, although larger audit firms generally provide better audit services, it does not connote that all large audit firms (or small audit firms) provide the same quality of audit services. Audit fee can, therefore, be used to determine the quality of audit within a group of large and small auditors. Audit fees differ from audit firm to audit firm, and audit fees are associated with audit quality.

“It is well known that the audit fee charged is directly based on the number of working hours of auditors, and the hourly rate differs between partners, managers' non-detection penalties increase the audit fee, as in a competitive audit market the fee must compensate the auditor for higher expected losses. If the inherent risk is perceived to be high, auditing firms will assign the engagement to more competent and experienced staff, resulting in a higher audit fee. In other words, a higher audit fee reflects a higher level of auditor effort to control and minimize the risk of audit failure” (Tang et al., 2016:138).

The audit client however perceives audit fees as an indication of the expected quality of services. Larger audit fees are expected to be accompanied by high-quality audit fees is, therefore, a complementary measure of audit quality. Since there are other determine a variable of audit fees including complexity of firm transactions, audit service volume and the nature of firms internal control, Tang et al. (2016) control for the effect of total assets on audit fees. There is a positive association between audit quality and FRQ. *AFR* is formulated as follows:

$$AFR_{i,t} = \frac{\text{Audit fees}_{i,t}}{\text{Total assets}_{i,t}} \quad (25)$$

the model uses the median observation of firm-level AFR instead of the average.

Country FRQ Index (FRQI) is computed based on the values of the dimensions discussed in the foregoing paragraphs. To determine the FRQI that capital markets are ranked, the values of the six individual FRQ indicators computed the arithmetic average score of the six dimensions is a measure of country-level FRQ.

2.2.2 Management Quality (MgtQ) and FRQ

2.2.2.1 Empirical measure of MgtQ

Research suggests that top management specific attributes and idiosyncrasy (such as ability, aptitude, reputation, qualifications) influence corporate economic outcomes (Demerjian et al., 2013; García-Meca & García-Sánchez, 2018). Management attributes are thus considered an essential determining factor of FRQ. Studies such as Notbohm et al. (2019); Rashid (2020) and Chang et al. (2009) have suggested that managerial judgements are driven by economic agents' traits which are influenced by their professional qualification, experiences and their extent of accountability. Since FRQ bothers with discretionary accounting, the professionalism and accountable nature of managers could influence the quality of financial reports to produce by them. Management ability to formulate accurate judgements and make prudent estimates will therefore vary across individuals. Competent managers have a better understanding of the firm and the industry, as well as a strong ability to synthesise information into reliable and progressive estimates with which to produce better quality financial reports.

Measuring MgtQ is paramount to many important research questions, such as those investigating the implication of managerial ability on firm performance, financial reporting, investment decisions, executive compensation and corporate governance among others (Demerjian et al., 2012). Some studies have relied on proxies such as firm size, past abnormal performance, compensation, tenure, media mentions, professional certification, education (for example, Rashid, 2020; Priscilla & Siregar, 2020; García-Meca & García-Sánchez, 2018) while other researchers have also inferred the ability of managers using data envelopment analysis (DEA) within specific industries (for example, Leverty & Grace, 2012; Demerjian et al., 2013). Notwithstanding their accepted validity by some researchers, most of these measures are a reflection of significant

aspects of the firm which are beyond management control. For instance, media mentions are more common for a large organisation with a high market share, and abnormal stock returns are driven by variables other than managerial ability. Likewise, though management is directly linked to manager fixed effects, they can be applied to only a relatively small sample of firms and do not offer a stand-alone measure of ability.

To address the apparent weakness in the literature on the measure of MgtQ, Demerjian et al. (2012) proposed a new measure of the managerial ability which used the efficiency of corporate managers, relative to their industry peers, in managing corporate resources to maximise revenues. Their measure considers the multiplicity of revenue-generating resources including, inventory cost, operating expenses, fixed assets, operating leases cost, research & development (R&D) cost, and intangible assets. The study hypothesised that better able managers properly understand technology and industry trajectory, reliably predict product demand, invest in value maximising projects, and efficiently manage corporate employees better than less able managers. In summary, their proxy was underpinned by the view that quality managers generate higher revenue per unit of each available resource or, conversely, minimize the cost and quantity of resources used for a given level of revenue. According to Demerjian et al. (2012:1230). “assessing managers based on the efficiency with which they generate revenues, rather than by their pay or media mentions, is intuitively appealing as it is more in line with the overarching goal of profit-maximizing firms”.

Based on these assumptions, Demerjian et al. (2012) developed the MA-Score to estimate the degree of efficiency in the management of firm resources by managers. All firms utilize capital, labour, and fixed assets to generate revenues. High MgtQ will generate a higher rate of output from a given input than lower MgtQ. They employed data envelopment analysis (DEA) to determine firm efficiency within industries, by assessing the turnover of each firm, conditional on the inputs such as Cost of sales, operating Cost, Non-current assets, operating leases Cost, Research & Development Cost, Purchased Goodwill, and Other Intangible Assets. Thus the measured resources reflect both tangible and intangible non-current assets, innovative capital (R&D), and other inputs that are not reported separately in the financial statements, such as labour and consulting services but whose costs are included in the cost of sales and operating cost. Recent studies such as Demerjian et al. (2013) Baik et al. (2018) have measured MgtQ using Demerjian et al. (2012) DEA Score.

However, Demerjian et al. (2012) DEA Score rely on Cost of Goods Sold, operating cost, non-current assets, Operating Leases cost, Research & Development Cost, Purchased Goodwill, and Other Intangible Assets reported in the financial statements and which measurement or valuation are based partly on management discretion. Consequently, the variables used are themselves susceptible to manipulation and misstatement to portray good managerial quality. Measuring MgtQ by a non-financial statement variable is thus expected to be more reliable than financial statement variables which are determined at the discretion of management. The quality of management will be determined by the firm's reliance on professional managers chosen for merit and qualifications other than relatives or friends without regard to merit. In the Global Competitive report by the WEF, one of the indicators of labour efficiency is a country's efficient use of talent which is determined by firm's reliance on ProMgt. Firms that rely on professional managers chosen for merit and qualifications to holds senior management positions can be said to have good MgtQ than those that uses relatives or friends without regard to merit. In this study therefore MgtQ is measured by the extent firms in a country utilise professional managers chosen for merit and qualifications to holds senior management positions instead of using relatives or friends without regard to merit and the extent to which managers are accountable to investors.

2.2.2.2 Relationship between MgtQ and FRQ

The role played by management in the quality of financial disclosure of firms has received research attention following financial reporting failures. The heightened attention is explained by the fact that financial reporting fraud is typically committed by managers who not only can alter the financial statements but also has an incentive to do so without been detected (ACFE 2020; Svabova et al., 2020; Mohammadi et al., 2020; Becker et al., 1998). It is acknowledged that management choices and decisions are driven by their exposures, experiences, competence and other personal traits as well as access to information (Pavlatos & Kostakis, 2018; García-Meca & García-Sánchez, 2018). Since FRQ bothers with discretionary accounting, the professionalism of managers could influence the quality of financial report they produce. Conceptually, higher MgtQ personnel should have a better appreciation of their firms business, as well as the economic, political and regulatory implications of their decision and, should be more guided by professional ethics in producing accounting information to investors (Rashid 2020; Baik et al., 2020; Demerjian et al., 2013). Demerjian et al. (2012) submit that competent managers produce better quality financial reports.

Impliedly higher quality managers who are more guided by professional ethics and are accountable to investors are less likely to manipulate financial report to deceive investors. The engagement of professionals in a senior management position of firms is more likely to lead to better FRQ. MgtQ is, therefore, more likely to ensure FRQ than non-MgtQ. Hence, where professional managers are mostly engaged in a senior management position of corporation vis-a-vis reliance on relatives or friend without regard to merit and qualification, managers will be greatly accountable to investors and ensure that the financial reporting system and overall control environment of a company, produce high-quality accounting information to the stakeholders. Consequently, FRQ is more likely to be high in countries that rely on professional in senior management positions than countries that rely on relatives or friends without regard to merit. Furthermore, in countries where management is greatly accountable to investors and the boards of directors, FRQ is more likely to enhance.

Empirical research that links corporate internal management mechanism to FRQ has largely focused on the effect of board's or audit committee's structural and compositional characteristics on FRQ (Holtz & Sarlo Neto, 2014; Firoozi et al., 2016). Good structural and compositional characteristics of board and audit committee do not necessarily translate into the effectiveness and accountable management. Ogbaisi et al. (2019) suggest that board expertise has a significant positive relationship with FRQ making board expertise a major determining factor of FRQ. The few research studies that consider the MgtQ and its relationship with corporate FRQ have produced somewhat mixed findings. Therefore, extant research does not provide conclusive and complete evidence about the relation between MgtQ and FRQ. Though studies on the influence of MgtQ on FRQ are limited, a forcefully emerging conclusion from the recent exploration is that capable managers have less propensity to opportunistically manipulate financial statement. This is because high-quality managers' exhibit higher professional etiquette which leads to fewer internal control violation and fewer restatements and therefore higher FRQ.

In testing the MgtQ hypothesis, research has used various indicators to proxy MgtQ including ethics and diversity of management, Women CEOs/CFOs, CEOs attributes CEOs early-life risk exposures, managerial ability, financial expertise of CEOs the financial expertise of CFOs, management's ideology, CEO and CFO power, the qualities of TMT and the professional accountants in the TMT among other indicators.

From the investigation into the implications of CFOs attributes on accounting errors, Aier et al. (2005) show that accounting restatements are negatively associated CFOs financial expertise. They show that firms whose CFOs have extensive work experience possess an advanced degree (such as M.B.A) professional certification (such as a CPA) have significantly less propensity to restate their firm's reported earnings. The study used a logit model to test the probability of restatement of earnings with the proxies of financial literacy.

Huang et al. (2012) examined the link between CEO age and FRQ based on the hypothesize that matured CEOs better supervise internal controls to ensure higher-FRQ. This notion was premised on the idea that matured CEO was more experienced and exposed to the industry and can have a better appreciation of the firm environment. Using meet or beat and restatement as a proxy for FRQ, they find CEO age and FRQ had a significant positive relationship The study, therefore, concluded that CEO maturity (age) is a key driver of firms FRQ.

The positive implication of MgtQ on FRQ have also confirmed by a study conducted by Koh (2011). Measuring managerial reputation by high-profile awards to CEOs, Koh (2011) analysed the pre and post CEO maiden accounting practices of a firm to determine the relevance of managers' reputation on FRQ. The study document that prominent CEOs apply conservative accounting policies and are less motivated to manipulate earnings. The study implies that more prominent CEOs ensure quality accounting information than less prominent CEOs. This is plausible in the sense that prominent CEOs are more susceptible to bad news than CEOs who are not well-known.

The influence of top management characteristics on firm voluntary financial disclosure has also been examined by Bamber et al. (2010). The priori of their study suggest a conflicting role for idiosyncratic noneconomic manager-specific influences on corporate outcome in financial economics and strategic management literature. Whereas financial economics suggest a limited role, strategic management literature suggests that such influence significantly affect corporate outcomes. Based on this, Bamber et al. (2010) empirically examined how individual managers play an economically important role in the voluntary financial disclosure choices of their firms. The study finds that top management exerts distinctive and significant economic influence on their company's voluntary disclosures. According to the researchers, managers' specific disclosure

styles are related to observable demographic attributes of their backgrounds. Their study document that senior managers with experience in finance, accounting, and law, managers with military experience and those born before World War II, are characterised by disclosure styles that display certain conservatism and also inclined to enhanced precision in disclosure.

Similar to the findings of Bamber et al. (2010), Baik et al. (2018) show that management capability has a positive effect on the rate and accuracy of firms' earnings forecasts, as well as market responsiveness to these forecasts. Their study also supports a positive relationship between MgtQ and the quality of accounting information of firms. Baik et al. (2020) further confirm that management capability is positively and significantly associated with the qualitative characteristics of firms' information environment. Their finding was consistent with their priori that corporate accounting disclosure quality is enhanced with competent managers in a top management position.

Using Demerijian et al. (2012)'s MA-Score to measure managerial ability, Demerijian et al. (2013) in their study of the implication of managerial ability on earnings quality also confirmed that managerial ability is positively related with AQ but media prominence is negatively associated with AQ. They however concluded that MgtQ leads to enhanced earnings quality. Their findings agree with the presumption that quality of judgement and financial reporting estimates can be and are driven by the characteristics of the managers.

Wang et al. (2017) examined the relationship among managerial ability, political connection and enforcement actions for fraudulent financial reporting. The results of the study show that increased managerial ability is associated with fewer fraudulent financial reports. The study further finds that the effect of managerial ability on the propensity of financial reporting fraud is weakened by a firm's political connections. Baik et al. (2020) analyse the effect of managerial ability on income smoothing. They examined whether the managerial ability is related to income smoothing and whether the resulting smoothing from managerial ability improves the informativeness of earnings performance. The study results show that managerial ability is positively related to smoothing. The study further shows that high-quality managers incorporate more forward-looking cash flow information into current earnings through smoothing. This according to them enhances earnings

informativeness on future cash flow. They assert that smoothing associated with high-quality managers improve stock price informativeness about future cash flows.

In investigating the relationship between managerial ability and financial reporting timeliness, Abernathy et al. (2018) reveal that high-quality managers possess the required human capital and are better placed to maintain the system and internal controls underlying the firm's financial information. They, therefore, suggest that highly able managers produce more timely financial disclosures. They conclude that incremental to firm-level attributes, the higher managerial ability is linked with a shorter earnings announcement lag, a shorter audit report lag and a lower propensity for late filing of required returns to the regulatory authority. Collectively their results show that managerial ability has a significant positive implication on FRQ. Using the average workforce educational level as a proxy for employee quality Call et al. (2017) analysis the association between staff quality and financial reporting outcomes. The results of the study show that high-quality staff exhibit high AQ, fewer internal control violations and fewer financial restatements. Quality staff is associated with the frequency, timeliness, accuracy, precision and biases of management forecast. Their evidence corroborates that staff quality is associated with both mandatory and voluntary reporting quality and for that matter FRQ.

Brockman et al. (2018) argued that internally-promoted CEOs have a high propensity to produce better FRQ than outside CEOs. They argue that CEOs promoted from within the firm have a better understanding of their firm's environment than those engaged from outside. Specifically, they find that CEOs with extensive experience from within the firm are highly probable to issue voluntary and accurate earnings forecast than those CEOs who have minimal internal experience as well as managers engaged from outside the company. Inside engaged CEOs attract more investors response than outside engaged CEOs. Overall, the study finds that managers with extensive experience with a firm are associated with high FRQ. García-Meca and García-Sánchez (2018) investigate how management competence influence FRQ using a study sample from nine countries. The study was premised on a hypothesis that banks earnings quality and AC improve with high-quality managers. The study results confirmed their priori that managerial ability contributes significantly to firm FRQ and that competent bank managers have less probability of managing earnings. Rashid (2020) investigate the effect of professional accountants on the FRQ of the firm. Consistent with other studies, the researcher provides evidence that professional

accountant in TMT has a positive and significant impact on FRQ. Furthermore, Zhang (2019) investigate the effect of TMT characteristics on FRQ and confirmed the positive association between MgtQ and FRQ. The study finds that team homogeneity and extensive shared experience harm DA especially for firms with income-increasing EM incentives.

All the studies summarised in the foregoing paragraph have suggested that managerial attributes influence firms economic outcomes and corporate information environment including FRQ. From the above literature, it can be inferred that MgtQ has a significant impact on FRQ, and that capable managers have less propensity to manipulate financial reports. Even though these extant studies that have considered the implications of MgtQ on FRQ have produce results that indicate that high MgtQ produces better quality accounting information than low-MgtQ and for that matter support the Upper Echelon theory, some researchers have suggested otherwise. The contrasting view is based on the hypothesis that quality TMT is more capable of manipulating financial statement and concealing fraudulent financial statement. This view is underpinned by the “rent extraction hypothesis” which states that reputed management personnel accentuate their career enrichment and for that matter inclined to decisions that enhance their reputation even if it will affect negatively FRQ. For instance, such managers tend to reduce the AQ to achieve earnings targets. Malmendier and Tate (2007) contend that the prominence of management personnel increased the performance expectation of investors and analyst. If senior management personnel capitalise on their reputations or qualifications to expropriate ‘rents’ from their companies and get side-tracked from effectively managing the company, meeting or exceeding investors and analyst expectations become difficult. Since continually underperforming investors' expectations have the propensity to damage management personnel's reputation, to protect their prominence, reputed management personnel will manipulate the company's earnings more than non-reputed management personnel. Some empirical studies have confirmed the presumption that higher-quality TMT can weaken the information environment of firms by engaging in opaque financial disclosures or may even be irrelevant in firm FRQ.

From an empirical examination of the relation between CEO reputation (proxied by press coverage) and firm’s earnings quality, Francis et al. (2008) discovered that highly reputed CEOs produced poor quality accounting earnings. Their study results contradict the “efficient contracting” perspective that prominent CEOs make a decision that results in FRQ. However,

according to them, this counter-intuitive findings is consistent with the “rent extraction” hypothesis which suggest that prominent managers have high propensity to use their discretion to manipulate financial statement to protect labour and security market perceptions). Their findings also are consistent with the matching hypothesis. This hypothesis states that inherently poor earnings quality leads to increased demand for reputed CEOs and the need to justify appointment will lead reputed managers to manipulate earnings.

Li et al. (2016) examine the implication of TMT expertise on real earnings management (REM) activities of firms. The findings from this study were mixed. That is whereas the percentages of TMT members with master's degrees and managing core functional areas have a negative relation with REM activities, the effect of the percentage of TMT members with CPA certification was opposite. They expatiate further that possession of higher academic qualification and core functional areas activity impact is demonstrated mainly through improved performance of firms, thereby reducing managers' motivation to manipulate accounting earnings. They further discovered that the effect of TMT expertise on REM weakens with increasing firm age.

Similarly, Priscilla and Siregar (2020) tested the research findings of Li et al. (2016) in Indonesia by analysing the impact of TMT expertise on REM and accrual EM activities. The study results show that TMT members expertise has no significant effect on accrual-based EM activities. Meanwhile, TMT members expertise influence positively firm REM activities. The study further discovered that consistent with managerial entrenchment effects, professional accountant positively affect REM activities of firms but negatively influence REM activities of firms.

2.2.2.3 Gaps in the Literature

The findings from the studies reviewed in the foregoing paragraphs suggest that the qualitative characteristics of senior management (MgtQ) affect the FRQ of firms. However, the direction of the relationship is conflicting among different studies. Whereas some studies Baik et al. (2018), Wang et al. (2017) and García-Meca and García-Sánchez (2017) Rashid (2020) have produce results that indicate that high MgtQ produces better quality accounting information than low-MgtQ and for that matter support the Upper Echelon Theory, some research suggests otherwise. The contrasting views from other extant literature such as Francis et al. (2008) Li et al. (2016) Priscilla and Siregar (2020) affirm the assumption that more competent managers tend to manipulate

accounting information through non-transparent financial disclosures with others suggesting that managerial quality may be irrelevant in FRQ of firms. The conflicting results from extant studies confirm that accounting literature has been inconclusive on the effect of MgtQ and FRQ. This inconclusive evidence provides opportunities for further research.

Further, extant studies have focused on the developed economies (particularly the United States of America developed European countries) and some emerging economies in Asia. Extant research has not considered the financial reporting implication of MgtQ from the perspective of countries in the African continents. Additionally, from the literature search, extant studies have been country-specific and no study has yet considered a cross country view of the implication of country reliance on ProMgt on FRQ. Considering the trend of financial reporting fraud in SSA filling such an empirical gap would assist policymakers in fashioning out strategies to improve FRQ to foster economic growth.

In addition, studies have measured MgtQ with varied proxies. Whereas some studies used education, reputation and tenure as a proxy for quality, other studies measure managerial ability by index developed by Demerijian et al. (2012) which also use firm financial accounting numbers and for that subject to manipulation. As Baik et al. (2018) indicate, because MgtQ is difficult to observe directly, research results are based on proxies that may embody errors. Measuring MgtQ by indicators such as professionalism and accountability of management which have not received adequate attention from empirical literature may therefore give a different result.

Furthermore, recent studies showing a relationship between MgtQ and FRQ only employed a static regression framework which assumes a homogeneous parameter on firms located in a jurisdiction. Since many processes display dynamic adjustment over time, ignoring the dynamic aspect of data leads to serious misspecification biases in the estimation. Consequently, another important point to note is that the diverse results on the FRQ implication of MgtQ are unquestionably the result of the several methodological issues that MgtQ research faces. Therefore, the results of the majority of these studies may be spurious due to a lack of attention to crucial research issues, such as endogeneity, variable measurements, survey biases and other methodological issues (Crane et al., 2017). As an example, the question of endogeneity was rarely discussed and addressed in these extant studies. Endogeneity is a phenomenon where the error term of a model correlates with the explanatory variables (Khan et al., 2018). It might therefore not be outrageous to suggest that the

conclusions of most of these studies must be held suspects for not treating this issue carefully (Crane et al., 2017). The problem is that endogeneity might result in inconsistent regression coefficients, thus leading to inappropriate conclusions about the significance of the variables (Ullah et al., 2018). This study builds on the limitations of the previous studies by incorporating a state-of-the-art research design and estimation technique called the System Generalised Method of Moment (Sys-GMM) that permit for a rapid accumulation of knowledge in the growing field of MgtQ. The use of the dynamic estimation model (Sys-GMM) specifically addresses the endogeneity problem.

2.2.3 Investor protection (IP) and MgtQ

2.2.3.1 Determinants of IP

The investor protection (IP) regime of a country can be strengthened through various laws and institutional arrangements. IP has multiple elements and can therefore be measured using multiple proxies (Francis & Wang, 2008; Houque et al., 2012). Due to the multiplicity of its dimension, extant cross-country studies have measured IP using multiple proxies. For instance, Leuz et al. (2003) Chih et al. (2008) Francis and Wang (2008) Houque et al. (2012) Persakis and Iatridis (2016) measured IP by five or more proxies including board independence, Security law enforcement, minority shareholder rights protection, judicial independence, freedom of the press, rule of law, legal tradition, institutional quality, transparency of government policymaking, legal rights index.

The strength of enforcement of property right explicitly determines the extent IP environment. Sala-I-Martin et al. (2015) note that economic literature document the critical nature of property right, enforcement for the economy. IP will be undermined if financial assets (such as shares and bonds) cannot be acquired and disposed of with confidence of the transaction being approved by authorities. Lack of property right also pushes prospective investors out of formal markets into the informal sector. Sala-I-Martin et al. (2015) suggest that appropriate participation in a framework that enforces property ownership right is a precondition to undertake commercial activities and obtain legal remedies in court. Therefore, the extent to which property rights including financial assets are protected is key to IP.

A country's securities market regulations also determine the IP regime. According to La Porta et al. (2006), the protection provided by securities markets regulations is fundamentally distilled into liability standards, disclosure requirements and public enforcement of securities laws. Hope (2003) as reported by Houque et al. (2012) suggest that the quality of securities regulation and enforcement may constrain managers from manipulating financial reports and also prevent managers from trading of firm' shares. The quality of the securities market regulation to a large extent protect the investor.

Another factor that determines the IP regime is the independence of the Judiciary. Independence of the Judiciary defines the quality the judiciary drive for proper enforcement of laws and rights of an investor. Quality judicial systems provide a shield to investors as they serve as a mechanism for legal redress and therefore key to IPs. As judicial independence is enhanced investor rights could be properly enforced and protected. Consequently, La Porta et al. (2006), Francis and Wang (2008), and Houque et al. (2012) posit that stronger IP will exist in a country where the judiciary is independent, and legal framework for settling the dispute is very efficient

The level of transparency of government policymaking is another determinant of the country IP regime. This measure is an indication of the extent to which companies are informed of government's policies and regulations changes. In a country where companies are informed by the government of changes in policy and regulations, investors will have adequate information to make a better decision that protects their interest. As results, Persakis and Iatridis (2016) suggest that a country with high government policy transparency provide stronger protection to an investor than a country with low government policy transparency.

As Sala-I-Martin et al. (2015) suggest, corporate ethics and standard of corporate governance incentivised firms, and other market players economic activities. Strong and effective corporate governance empower shareholders to exercise effective control over firms to optimise their value. Effective corporate governance also minimises investors' risk and reduce the cost of capital by synchronising incentives of insiders and investors. According to Sala-I-Martin et al. (2015), some of the elements critical to corporate ethics and governance include ethical behaviour of firms, auditing strength and financial reporting standards, minority shareholder interest protection, and stock exchange regulations and strength of IP. Corporate Board also plays a critical role both as an independent reviewer of management action and safeguarding shareholders' wealth (Houque et

al., 2012). Auditing and financial reporting standards enforcement put pressure on management and auditors to be prudent in the exercise of managerial discretion in financial reporting (Holthausen 2003; Houqe et al., 2012).

Further to the foregoing discussion, Leuz et al. (2003) Francis and Wang (2008) and Persakis and Iatridis (2016) document that jurisdiction with feeble minority shareholders' interests protection greatly incentivizes management corrupt accounting practices. Consequently, a strong IP regime in a country enhances the right of a minority shareholder. When minority shareholders are greatly protected by law against majority shareholders and managers opportunistic behaviour, corporate insiders, for fear of civil or criminal liability and other sanctions imposed by regulatory authorities, have an incentive for a higher standard of care (Houqe et al., 2012). In addition to minority interest protection, the extent to which collateral and bankruptcy laws protect borrowers and lenders rights serves as a determining factor in management ability to manipulate financial statement to paint a favourable picture to secure debt financing. According to Sala-I-Martin et al. (2015), this is measured by a country's legal right index. The level of legal rights index can therefore be a gauge of the protection of creditors. From the above, literature measures IP not only by legalities and regulations but by a mechanism that promotes internal and shareholder governance as well as the ethical environment of business.

2.2.3.2 Relationship between IP and MgtQ

Empirical studies such as Doidge et al. (2007); Aggarwal et al. (2008); Chen (2015); Adeoye (2013) and Withaar (2016) have explored the role of laws institutions and regulatory enforcement system on firm management. However, these studies have only considered the association between IP and corporate board effectiveness. As an example, Chen (2015) and Kobbi-Fakhfakh et al. (2020) studied the relationship between institutions, more specifically property right protection, and the structure of corporate boards in China and found that weak property right protection is linked positively with both the size and the number of outsiders in a corporate board. In analysing firm-level governance Aggarwal et al. (2008) and Garcia-Sanchez and Noquera-Gamez (2018) find a positive relation between IP regime of jurisdiction and firm-level corporate governance. According to them, the boards of directors of firms in weak IP countries appear to be less independent compared to firms in a stronger IP environment.

The conclusions made by Aggarwal et al. (2008) have been corroborated by Doidge et al. (2007) who investigated the importance of country characteristics in internal corporate governance mechanism. Their study evidenced that shareholder protection is positively and significantly linked to firms' internal corporate governance. Furthermore, Adeoye (2013) postulates that country's regulatory regime and enforcement system may be a prerequisite to improving the internal governance mechanism of firms in SSA. Withaar (2016) and Isaboke and Naziri (2018) provide evidence that, in a jurisdiction with a strong and stricter IP regime, firms have boards with optimal size and composition. Nevertheless, their results did not show a significant effect of IP on independence and meeting attendance of the board. Pathak and Sun (2013) also find no significant divergence in the performance of independent directors in restraining financial reporting manipulations between strong and weak IP countries. These studies only looked at board independence, board size and board meeting attendance (board structural and compositional characteristics). They did not consider how IP relate to a firm reliance on ProMgt.

Kobbi-Fakhfakh et al. (2020) investigate the implications of rigorous board monitoring on accounting segment disclosure quality. They also sought to determine whether the IP regime moderate the relationship between rigorous board monitoring and FRQ. The results of the study show that the quality of segment disclosure is enhanced for firms with independently composed monitoring committees. The study further shows that a positive relationship between intensive board monitoring and segment disclosure quality is more prominent in countries with a weak IP regime than in a country with a strong IP regime. Thus, the study showed evidence in favour of a "substitutive" relationship between intensive board monitoring and IP regime concerning their association with segment disclosure quality. This finding evidence that board efficiency is a given where IP is strong. However, in a weak IP regime intensive board monitoring maybe require to ensure efficiency.

Based on the perspective shared by the institutional theory, the role of institutions, law and regulations on the behaviour of firm through Coercive and normative isomorphism may influence the quality of staff engaged by firms and the behaviour of top management staff. For example, in a jurisdiction with quality laws, institutions, and enforcement system or strict IP regime, companies are more exposed to high litigation risk and cost, and accordingly, to mitigate such risk, the firm will rely more on professional managers chosen for merit and qualifications to occupy

senior management positions than uses relatives or friends without due regard to merit. MgtQ, therefore, is likely to be related to the IP regime of a country. However, extant studies have not empirically examined how IP and MgtQ are connected. Therefore, examining the relationship between IP and MgtQ which are yet to be considered in empirical literature will contribute to filling the gap.

2.2.3.3 Other determinants of MgtQ

The empirical literature has not sufficiently considered the factors that determine the quality of MgtQ engaged by firms. The dearth of evidence on the determinants of MgtQ nonetheless, this study hypothesised that Foreign Ownership, Total Tax rates, National culture, Economic size and Economic growth will influence a firms' reliance on ProMgt as well as the level of BodEff (MgtQ) in a jurisdiction.

Foreign Ownership: Foreign ownership refers to the control of a business or natural resource by individuals or institutions outside the original jurisdiction of the firm. In general, when multinational companies with a presence in more than one country, invest in a foreign country, by way of foreign direct investment or acquisition, it results in foreign ownership of firms. Where the multinational or institutional investor acquires at least fifty per cent of the shareholding, it is regarded as the controlling shareholder. Foreign ownership may also occur where domestic property or business is bought by a foreign individual.

It is hypothesised that the extent foreign ownership of firms operating in a particular jurisdiction will influence the level of MgtQ of those firms. This is because foreign-owned firms may have more resources to engage the services of ProMgt than domestically dominated firms, hence they rely on PorMgt for some services. In addition, a foreign-owned firm has more robust recruitment processes than a non-foreign own firm that may rely heavily on family, friends and other relatives for managerial positions without regard to merit.

Total Tax rate: Total Tax rate is a measure of the fraction of income that an individual or a firm pays as taxes in a particular country. This is determined as the average rate at which income is taxed for individuals and companies. The total tax rate is the configuration of all taxes owed by a taxpayer for the year. This comprises corporate income tax (percentage of operating income),

labour tax and other taxes. This study predicts a positive relationship between a country's total tax rate and the MgtQ. This is because tax represents one of the largest expenses to a company. Because of this, firms normally engage in tax planning activities to reduce their tax burdens. However, tax planning demands experienced, knowledgeable and astute professionals. Firms would therefore turn to ProMgt to manage their tax planning activities for them. It is, therefore, predicted that the Country's total tax rate will have a positive and significant relationship with MgtQ. This is confirmed by Salawu (2017) and Khaoula and Moez (2019) who provided evidence to show a positive relationship between Taxes and MgtQ.

National Culture: Culture has been defined by Hofstede (1980:260) as “the collective programming of the mind which distinguishes the members of one group or category of people from another.” This definition has been corroborated by Guiso et al. (2006) and Fernández (2008) who defined culture as “those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation”. Hofstede (1980) identified four dimensions of national culture which included individualism versus collectivism. According to the researcher, the individualism/collectivism index measures the degree to which people in a society are integrated into a group. An individualistic society is said to have loose ties and people conduct their activities in pursuit of individual and immediate family interest without cognisance of the societal goal. Its counterpart, collectivism ascribes a society in which people are closely integrated relationship extends beyond immediate family to the entire society and societal goal drive individual actions and inaction (Hofstede, 1980). Individualism place emphasis on personal benefit as the key factor in making a decision. Consequently in a country that promotes individualism business will seek to satisfy the immediate family first in a decision such as recruitment and will therefore engage close relative or family members in management position irrespective of qualification or merit. This study predicts that a country with a high level of individualism would have a lower level of board efficiency and lower reliance on ProMgt among its firms. The plausible reason for this is that firms in countries with high levels of individualism may lack coordination among their board of directors. This would mean that the board of directors may not share ideas and may not be willing to either seek help from a colleague or offer to help a colleague. This will stifle their ability to share ideas, innovate and learn from each other. In such a situation, firms operating in countries with a high level of individualism will lack an efficient

board of directors. Abedana et al. (2016) and Persakis and Iatridis (2016) show evidence to confirm these suggestions.

Economic Condition: As an economy goes through periods of expansion and contraction depending on the nature of fiscal and monetary policies, the economic condition of a country changes over time along with the business cycles. The economic situation of a country drives business strategic decisions, policies and outcome of firms (AlFalahi & Nobanee, 2019; Farooq et al. 2020). A strong and conducive economic condition improves investors optimism and results in increased expected returns. High GDP and high economic growth rate regime foster growth-oriented business decision and improve the investment climate. The opposite could be true if economic conditions worsen. Additionally, firms monitor macroeconomic conditions to project sales growth and profitability.

This study predicts that the economic condition of a country in terms of growth and size will influence a countries level of MgtQ. We argue that firms operating in bigger economies would rely more on ProMgt than those operating in smaller economies. This is because bigger economies may have many firms with larger firm assets. Therefore, the government and regulators in those countries may put policies in place to protect the interest of investors. This will result in the firm demanding the services of prompt. In addition, a country experience economic growth firm within the country attempt to match performance with the level of economic growth and may choose to employ highly qualified management and improve monitoring of board performance to ensure the efficiency of the board of directors.

2.2.4 Auditor quality (AudQ) and FRQ

2.2.4.1 Empirical measure of AudQ

Audit quality has been examined from a various perspective in literature and its measurement remains a crucial argument in empirical studies. Nevertheless, Rajgopal et al. (2015) indicate that research that investigates the drivers and impact of audit quality have relied on varied proxies to measure AudQ. From literature, Audit quality has been measured by the size of the audit firm, DA, going concern opinions, audit fees, AQ etc. Literature categorised the more commonly used proxies for audit quality into input-based proxies (indirect measure) and output-based proxies (direct measure) (Aghaei Chadegani, 2011; Memis & Cetenak, 2012; Defond & Zhang 2014).

Kitiwong (2014) explained the input-based measure of audit quality to mean auditor-specific characteristics such as audit firm size, audit tenure, industry expertise and audit fees, whereas output-based measure is explained to mean the characteristic of the financial statement underlying the audit report, going concern opinions and material restatements, preferably initiated by the auditor.

Among the various proxies used for measuring AudQ, the most commonly used input-based proxy in literature is the size of the audit firm, (BigN and non-BigN). The intuition is that these international audit firm provide enhanced quality audit than their counterpart due to their scale, access to superior resources. International audit firms are perceived to be more independent since they are susceptible to greater reputational risk should they be negligent, they have less individual client revenue dependence and hence have less propensity to be manipulated by an individual client; moreover, their larger revenue base exposes them to higher litigation risk (Skinner & Srinivasan 2012; DeFond & Zhang 2014). Studies such as Lennox (1999); Memis and Cetenak (2012); Kitiwong (2014) confirm the view that audit firm size (Big4 and non-Big4) is a good proxy for audit quality. However, the BigN variable according to Rajgopal et al. (2015) is considered as a signal variable without many nuances since audit firm size is not an engagement specific measure.

Output-based measures of AudQ have based on the premises that real audit fieldwork is not observable or examinable. As a result, empirical studies have usually used ex-post data of audits to evaluate the process of audit instead of assessing the process of an audit as it is being carried out. This ex-post data include the level of accruals, the report of the audit, the incidence of beating or missing performance benchmarks by firms and restatements of audited accounts (Kitiwong, 2014; Defond & Zhang, 2014). In general, a defective audit is reflected in a high level of DA.

Defond and Zhang (2014) summarise that excessive DA and significant restatements of financial statements are acceptable for audit quality because they give a direct indication of the quality of the audit process. However, they are sporadic and also do not account for financial statements manipulations with generally accepted accounting principles. Moreover, the absence of significant restatement does not automatically indicate higher AudQ as even the most carefully executed audit procedures do not guarantee absolute assurance or detection of fraud. Kitiwong (2014) corroborate further that measuring audit quality using DA numbers without considering the materiality concept

could be possibly misleading to researchers assessment of audit quality between a Big4 and a non-Big4

Due to the importance of materiality in using output-based measure (DA) to determine AudQ, Kitiwong (2014) measured AudQ by incorporating materiality into the level of DA and the nature of audit opinion. According to Kitiwong (2014), the joint association between 'audit accepted level of DA and type of audit opinion is what defines audit quality. Audit accepted level of DA (*Accepted-DA*) which is pegged from 0.5% to 1%, 2.5%, 5%, 7.5%, 10%, 20% and 30% of lagged total assets is used to test the extent to which auditors in different types of the audit firm and different countries can tolerate DA. *Accepted-DA* is used as the yardstick to assess audit quality. A low level of the benchmark helps indicate a more conservative auditor; a high-level one helps distinguish an auditor who is more flexible. According to Kitiwong (2014), the appropriateness of an audit report is determined by comparing the absolute value of DA and *Accepted-DA*. This is to indicate whether the difference is over or under the Accepted DA. AudQ is eventually coded by the joint relation between audit opinion type and Over/Under. Similar to empirical studies by Butler et al. (2004) and Johl et al. (2007), an audit opinion on financial statements is classified as either a clean opinion or an unclean opinion. AudQ is impaired if DAs are over an acceptable level but audit opinion is clean or DAs are below a benchmark but the audit expressed an unclean opinion.

The lack of agreement on the appropriate measure of AudQ motivated Rajgopal et al. (2015) to empirically test the construct validity of the five AudQ proxies that have been variously applied in accounting literature. Their study tested the validity of BigN auditor, DAs, signed and unsigned; audit fees; AQ and meet or beat analyst consensus estimates as AudQ proxies. They sought to determine the extent to which these proxies successfully predict identified audit and financial reporting failures. The study shows that BigN auditor is negatively associated with the total number of cases of identified audit failure. This result was instigated by the relatively fewer incidence of audit failure accusation against BigN auditor. The study further shows a positive relation between abnormal audit fees and cases of audit quality violation. Abnormal audit fees were negatively related to an allegation of defective auditing but had a positive relationship with other allegations. Non-audit fees ratio to audit fees positively related with allegations impaired auditor independence. However, the study results further show that other audit quality such as

DAs, signed and unsigned, AQ, meet or beat estimates of earnings, display nil or contrary relation with audit defect. The study, therefore, concluded that the BigN dummy is the most appropriate proxy to audit quality. This conclusion has been affirmed by Jiang, Wang and Wang (2019) who relative to non-BigN auditors, BigN auditors provide higher audit quality. Despite the signed agreement in the literature on the BigN proxy as a measure of audit quality, other empirical studies such as Semba and Kato (2019) show contrary evidence on the Big Dummy. Semba and Kato, (2019) show that controlling for client characteristic, all audit firms in Japan irrespective of their size, dispense similar quality of service. They, therefore, conclude that there is no difference in audit quality provided by Big4 and non-Big4. Nonetheless, Rajgopal et al. (2015) indicated that other measures of audit quality suffer from construct validity issues. Rajgopal et al. (2019) document that the predictive power of audit quality proxies is determined by research settings, the specific audit deficiencies hypothesized for the testing.

The foregoing discussion shows that how to measure audit quality continue to be an empirical question and researchers are yet to agree on the appropriate measure. This notwithstanding the majority of extant study has measured AudQ using the Big-size audit firm (BigN) dummy. The use of Big4 audit firm is premised on DeAngelo (1981) postulation that, AudQ is driven by the auditor's technical capability and independence and since the technical capability is usually presumed to be invariant across auditors, auditor independence is the main determinant of AudQ. Consequently, AudQ is not different from audit firm size (Gul et al., 2009; Memis & Cetenak, 2012). This is because when audit firm “earn client-specific quasi-rents”, audit firm that controls a greater number of clients based are more susceptible to both financial and reputational damages emanating from negligence and failure to report a discovered material misstatements and breach in a particular client's records. According to De Angelo (1981), this collateral characteristic increases the audit quality provided by big size audit firms. Consequently this study measure audit quality by the dummy of Big4 audit firm.

2.2.4.2 Relationship between AudQ and FRQ

Studies that examined the antecedent of FRQ have linked FRQ to the quality of auditors employed by the firm. These studies have proxied AudQ by Big4 dummy (that's Big4 and non-Big4 audit firm) and findings from these discussions have generally been inconclusive. However, most

literature suggests that FRQ is enhanced when reporting entity engages Big4 Audit firms than non-Big4 Audit firms. In corroborating the big size firm hypothesis, recent studies such as Persakis and Iatridis (2016); Alzoubi (2016); Lopes (2018); Alzoubi (2018); ÖZCAN (2019) found that Big4 Audit firm dummy and FRQ had a significant positive relationship, suggesting that Big4 auditors more effectively reduce financial statement manipulations relative to the non-Big4 audit firm. We trace the trajectory of literature on the Big4 hypothesis from the seminal work of Becker et al. 1998 to contemporary studies in this literature review to show how empirical studies on the subject has evolved.

In their seminal work, Becker et al. (1998) investigate how audit quality is related to EM practices of firms. The study measured audit quality with Big6 dummy and EM was measured using Jones 1991 DA model. The study by Becker and others was premised on the proposition that firms that engage the service of non-Big6 auditors may report DA that enhances earnings relatively higher than the DA reported by firms using Big6 auditors. Their study revealed that firms that engaged non-Big6 auditors recorded an average DA of 1.5 – 2.1 per cent of total assets higher than the DA recorded by Big6 auditors' client. The study further shows that, just like EM, firms that non-Big6 Auditors' client had a greater mean and median of the absolute value of DA. This implies that lower AudQ is associated with more "accounting flexibility". Their study concludes that EM is significantly lower among Big6 auditors' client compared with non-Big6 auditors' client.

The findings of Becker et al. have been corroborated by Francis et al. (1999) who document that the probability of using a Big6 auditor is propelling firms' endogenous propensity for accruals. Albeit firms using Big6 auditors have higher levels of total accruals, their amounts of estimated DA tend to be lower. Their finding is consistent with the hypothesis that aggressive and potentially opportunistic reporting of accruals is restrained when the firm engages Big6 auditors. Krishman (2003) also suggest that the relationship between stock returns and DA is significant for firms that employ the services of Big6 auditors than for firms that use non-Big6 auditors. Moreover, the DA of Big6 audit firm clients have a significant association with future profitability than that of non-Big6 audit firm clients. This result is a confirmation of the hypothesis that when the auditor is independent or a Big size audit firm, accruals would reduce.

Similarly, Vinten et al. (2005) analyse the link between AudQ (measured by Big5 and non-Big5 dummy and auditor industry specialisation) and EM (measured by Jones DA) and provide evidence that Big5 audit firm is associated with EM in the IPO year in Taiwan. This implied that AudQ limit EM for Taiwan IPO firms. Confirming the BigN hypothesis, Rusmin (2010) show that AudQ and EM were negatively related. Implying that the extent of EM amongst Big4 audit firms' client was significantly lower than non-Big4 audit firm clients. Gerayli et al. (2011) also show that DAs are negatively related to Audit firm size and Auditor Industry Specialization and thus supporting their study hypothesis of a negative association between auditor independence and DA. The general conclusion from the study was that firms that are audited by high-quality auditors have a high propensity to have less DA.

The link between AudQ and EM has also been examined by Alzoubi (2016) using evidence from Jordan. Using DA as a proxy for EM, the study shows a statistically negative and significant relationship between AudQ and EM. The result concludes that the magnitude of EM is significantly lower among Big4 auditors' clients. The study thus espoused relative to non-Big4 audit firms, Big4 audit firm restrain earnings manipulation by firms and thus ensure FRQ. Based on the study of the behaviour of DA in Portuguese non-listed companies, Lopes (2018) evaluated whether there is a relationship between the manipulation of results and the quality of the auditors engaged. The results of the study suggest a relationship between AudQ and EM. They show that the magnitude of EM is significantly reduced among firms engaging a Big4 audit firm relative to firms using a non-Big4 audit firm. The study, therefore, affirms the big audit firm size hypothesis that accruals lowered for Big4 audit clients compared to a non-Big4 audit client and thereby suggesting that Big size audit firm present better audit quality than non-big size firm. Again, Alzoubi (2018) documents that AudQ (proxied by auditor tenure, size, specialisation, and independence) and debt financing (low debt) curtail the potential of EM practices by firms and thereby ensure enhanced FRQ. Furthermore, ÖZCAN (2019) provide evidence to show that auditor independence and auditor industry specialization are significantly negatively associated with the possibility of EM and therefore supporting the idea that the high-quality audit is one of the key factors that can mitigate EM practices of firms.

Though many studies concur to the positive FRQ implication of audit quality measured by Big4 dummy, other evidence particularly those outside the US and the developed economies indicates

that there is no FRQ difference between firms using the services of Big Size audit firm and those using non-Big Size audit firms. For instance, such studies by Maijoor and Vanstraelen (2006) have concluded that Big4 audit firms do not help reduce the EM of firms. Several studies have found no significant relationship between AudQ and FRQ. Memis and Cetenak (2012) show that for Brazilian and Mexican firms audit quality reduce the magnitude of firm DA. For the other countries (Greece, Israel, South Korea, Poland, Russia and Turkey), AudQ and EM had no significant relationship. They concluded that Big4 do not restrain EM practice incentives in every emerging country. Yasar (2013), observed that audit quality (proxied by audit firm size), does not affect the magnitude of DA. The study concludes that there is no significant difference in audit quality provided by Big4 auditors and non-Big4 auditor. Accordingly, Big4 audit firms do not restrict EM practices in Turkey.

Habbash and Alghamdi (2017) investigate the link between audit quality and EM in less developed countries. In their study, audit quality was proxied by five different measures (auditor size, auditor industry specialization, auditor opinion, auditor change and timeliness of auditor report) and EM was measured by the absolute value of DA computed using the Kothari model. The study finds only auditor opinion as an indicator variable for the EM practice of firms. Accordingly, their results corroborated the assertion that auditors are ineffectual in front of opportunistic behaviour or activities by managers or corporate insiders.

Ajekwe and Ibiamke (2017) tested the Big4 hypothesis in Nigerian Stock Exchange by assessing the relationship between audit quality and EM. Proxying EM by the level of absolute DA, the study shows that Big4 auditors restrain EM practices but statistically insignificant. The results of the study imply that the presumption that Big4 auditors provide superior quality audit services and for that matter ensure high-quality earnings than non-Big4 auditors is misconceived. Therefore, the capacity of Big4 and non-Big4 in restricting EM activities of Nigerian firms is not different.

Abid et al. (2018) investigate whether, in a jurisdiction with feeble institutional settings, external auditors can potentially approve or limit a firm's EM practices. The study measured EM using signed discretionary and performance-adjusted DA and Big4 dummy and audit opinion (Qualified vs. Unqualified) were used to measure audit quality. The results of the study reveal EM activities of Big4 auditors' client and non-Big4 auditors client had no significant differences. The study further revealed that consistent with the entrenchment hypothesis, EM is predominant in family-

controlled firms and Big4 auditors do not moderate the family dominance effect on EM. On the effect of an institution, the study revealed that a small audit market characterised by low-risk exposure to litigation, bonding of audit firms and their client, weak IP regime, abysmal law enforcement systems and influential family dominance provides the environment for auditors to exhibit opportunistic behaviour that undermines independence and objectivity of auditors.

Yasser and Soliman (2018) assess the impact of Audit quality on EM using in the listed companies in Egypt for the period 2012-2016. The study results show a positive significant relationship between auditor tenure and EM. Meanwhile, Audit firm size and auditor industry specialization had no significant link with EM. The study, therefore, suggests that Big4 auditors do not aggressively restrain EM practice than non-Big4 auditors. It was discovered that firm that engages the services of Big4 auditors reported same levels of DA like those who are audited by non-Big4, and thus conflicting the concepts of Becker et al. (1998) and DeAngelo (1981), and raising question on the wide use of Big size dummy as a measure of audit quality in the accounting literature. However, the findings are consistent with Yassar (2013) who referred to the dissimilarity between the audit environment in developing countries and developed countries like the USA and UK.

Testing the Big4 hypothesis in the context of an emerging market as Vietnam et al. (2018) applying GMM methodology concluded that, contrary to a large body of research in the developed economies that support the BigN effect on FRQ, Big4 do not restrain REM in emerging economies. Zandi et al. (2019) also analyse the relationship between Big4 auditors and FRQ in Pakistan firms. Measuring FRQ by the level of accrual, the study results show that firms that Big4 auditors' clients have significantly lower accrual-based earnings management (AEM). The implication Big4 auditors' client produce better FRQ than non-big4 auditors' clients. However, using REM as a measure of FRQ, the study provides evidence to show that Big4 auditors' client has higher REM than non-Big4 auditors' clients. This suggests that Big4 auditors' clients produce poor FRQ as compared to non-Big4 auditors' clients. Zandi et al. (2019) thus suggest that Big4 auditors can effectively restrain AEM activities but are impotent in curtailing REM activities.

Based on recent allegations of large scale financial misrepresentations associated with the Nigerian oil sector, Alao et al. (2019) evaluate the impact of audit quality on EM practices among Nigerian oil and gas listed companies for a period of 5 years (2014-2018). The study used corporate annual

reports of twelve (12) listed oil and gas companies for the period under consideration. In testing their hypotheses, the study employed both descriptive statistics and Ordinary Least Square (OLS) regression analysis. The management of earnings is measured using DA based on the modified Jones model and regressed against audit firm size, auditor industry specialisation and auditor independence. The study results show a relationship between audit quality and earnings manipulation. The study provides evidence that auditors' independence positively and significantly relates to EM. However, the other variables (Audit firm size and auditor industry specialization) have an insignificant relationship with EM.

Farda et al. (2020) investigate the effect of AudQ on the REM of IPO companies. The study uses the data of 128 firms quoted on the Turkey Stock Exchange during the years 2007 to 2017. The study results evidence that the audit quality increases in the year of initial public offerings. Also, results show that the type of auditor, the Audit Tuner, and the concentration of ownership on the audit quality positively and significantly affect EM. Almarayeh et al. (2020) also confirm that in emerging economies, the external audit role in restraining EM is functionally different from that in Anglo-Saxon and West-European economies. Consequently, AudQ and audit fees have no significant effect on EM given the institutional regime in Jordan. Jordan, et al. (2010) summed up that compared to non-BigN auditors, BigN auditors dispense better quality audit services and forcefully curtail their clients' potencies to manage earnings in advanced economies such as the U.S. However, research outside the U.S. finds no consistent audit quality differential based on auditor size. It is believed that the inconclusive nature of the extant study partly emanates from the context of the study and the choice of control variables that condition the effect of audit quality and FRQ. These studies do not control for the effect of other key factors such as culture, MgtQ, political, economic and business environment that have been established in the literature as important mediating factors.

Ismayil (2020) employed a logistic regression model to investigate the relationship between EM and four audit quality variables (audit firm size, industry specialization, and audit fee) by analysing 60 Swedish listed companies from five different sectors (basic materials, consumer services, healthcare, industrials, and technology) for the period between 2016 and 2018. The 8-variable Beneish Model was used to estimate EM. The evidence of the study reveals that industry

specialization is a significant factor that restricting EM, while the size of the audit firm (Big4) and audit fees do not significantly influence EM.

2.2.4.3 Gaps in the literature

A review of the extant literature on the link between AudQ and FRQ provides some interesting insights into the Big4 hypothesis and the difference in research findings in various countries. The foregoing discussion suggests increasing interest in research on the Big4 hypothesis in emerging economies. Some studies reveal that firms that engage the services of Big4 audit firms improve their FRQ. However, the majority of these studies as discussed in the earlier paragraphs suggest that evidence on the relationship between audit quality and FRQ is inconclusive. This is because while some studies such as Iatridis and Dimitras (2013); Persakis and Iatridis (2016); Alzoubi (2016); Lopes (2018); Alzoubi (2018) and ÖZCAN (2019) allude that Big4 auditor restrains financial reporting manipulation and for that matter ensure FRQ more than non-Big4 audit firm, other evidence particularly those outside the U.S. such as Habbash and Alghamdi (2016); Ajekwe and Ibiamke (2017); Abid et al. (2018); Yasser and Soliman (2018); Khanh and Nguyen (2018); Almarayeh et al. (2020) and Ismayil (2020), indicate that there is no difference in FRQ between a Big4 and non-Big4 auditors and that a Big4 does not restrain financial statement manipulations. Some studies such as Alao and Gbolagade (2019), Zandi et al. (2019) and Farda et al. (2020) empirically show that Big4 auditors' client had a high level of DA than non-Big4 auditors' clients. This implies that relative to non-Big4 auditors' clients, Big4 auditors' client is producing poor FRQ. The conflicting results from extant studies confirm that existing research does not provide conclusive and complete evidence about the relation between audit quality and FRQ and for that the Big4 hypothesis. This inconclusive evidence provides opportunities for further research.

Jordan et al. (2010), Farda et al. (2020) and Almarayeh et al. (2020) suggest that while studies in the developed economies conclude that, relative to non-BigN auditors, BigN auditors more forcefully restrain their clients' effort managing earnings in general, research in less developed economies has found no difference in FRQ between BigN and non-BigN auditors. This, therefore, indicates that the relationship between AudQ and FRQ may be contextually dependent and SSA may have a different result. From the findings of Jordan et al. (2010), Farda et al. (2020) and Almarayeh et al. (2020), it can be argued that the AudQ effect on FRQ is significantly positive in a controlled and highly regulated environment like the US than less controlled and less regulated

environment. Given that the implication of audit quality on financial reporting has been acknowledged to be contextual dependent, the situation in the African countries may yield different results. Some isolated studies such as Okolie et al. (2014) document that AudQ significant and negatively related to EM. Tyokoso and Tsegba (2015) reveal that AudQ and EM have an insignificant negative relationship. Alao and Gbolagade (2019) suggest that there is a relationship between AudQ and earnings manipulation; auditors' independence has a significant positive relationship with EM. These studies are narrow in scope and do not give a general picture of SSA. From the literature, the search researcher is yet to consider a cross country perspective of the Big4 hypothesis in SSA.

Furthermore, recent studies showing a relationship between audit quality and FRQ only employed a static regression framework which assumes a homogeneous parameter on firms located in a jurisdiction. Since many processes exhibit dynamic adjustment over time, disregarding the dynamic aspect of data leads to serious misspecification biases in the estimation. Consequently, another important point to note is that the diverse results on the FRQ implication of audit quality are unquestionably the result of the several methodological issues that audit quality research faces. Therefore, the results of the majority of these studies may be spurious due to a lack of attention to crucial research issues, such as endogeneity, variable measurements, survey biases and other methodological issues (Crane et al., 2017). As an example, the question of endogeneity was rarely discussed and addressed in these extant studies. Endogeneity is a phenomenon where the error term of a model correlates with the explanatory variables (Khan et al., 2018). It might, therefore, not be outrageous to suggest that the conclusions of most of these studies must be held suspects for not treating this issue carefully (Crane et al., 2017). The problem is that endogeneity might result in inconsistent regression coefficients, thereby leading to inappropriate conclusions about the significance of the variables (Ullah et al., 2018). This study builds on the limitations of the previous studies by incorporating a state-of-the-art research design and estimation technique called the Sys-GMM that allows for a rapid accumulation of knowledge in the growing field of MgtQ. The use of the dynamic estimation model (Sys-GMM) specifically addresses the endogeneity problem.

2.2.5 Investor Protection (IP) and FRQ

The roles of institutions, regulation and enforcement system in promoting FRQ have been discussed by literature to some limited extent. Standard-setting bodies and regulatory institutions assume significant responsibility for setting effective regulations and standards and being the controlling and monitoring mechanism on external auditors to ensure FRQ. Auditors have an obligation to investors to exercise due professional care and express opinions that are appropriate under the circumstances. Audit failure, therefore, exposes audit firms to litigation for fraud and negligence.

Literature on the FRQ implications of the IP regime is scant. Though studies are limited, a forcefully emerging conclusion from the few existing studies is that FRQ is better in a jurisdiction with a strong and stricter IP environment than countries with feeble IP regime. These research postulations are based on the assumption that strong and strict IP are the most effective coercive mechanism to inhibit corporate insiders' potential to misappropriate corporate economic resources and therefore mitigate their motivation to produce fictitious financial reports.

Ball et al. (2003), document that despite the high-quality financial reporting standards, FRQ is abysmal in countries such as Hong Kong, Malaysia, Singapore, and Thailand due to incentives emanating from weak institutional structures. Accordingly, Bell et al. suggest that countries that require improvements in FRQ should focus on weakening managers incentive strengthening institutional and regulatory mechanism which is considered more fundamental than adopting harmonised financial reporting standards. They argue that except for improving countries institutional quality, harmonising reporting standards across countries may not be able to address the differences in FRQ. Shen and Chih (2005) investigate the effect of a country's IP environment on banks' EM practices across 48 countries worldwide. The results of the study revealed that a stronger and stricter IP environment minimises the incentives of banks to manage earnings and produce low-quality financial reports. Similarly, Bushman and Piotroski (2006) explored the incentive to manipulate financial report that is generated from the institutional structure and regulatory regime of a country. From their empirical examination of the relations between key institutional and regulatory features and a firm's AC, they show evidence on a medium by which specific institutions demonstrate their effect on observed AC. Furthermore, Dargenidou et al. (2007) conclude that asymmetrical information is resolved in the financial reporting by the

exercise of prudence and high conservatism in estimates and accounting policies in a country where there is strong and stricter protection of minority shareholder interest through either the legal IP provisions or strict monitoring.

Huijgen and Lubberink (2005) examine the implications of strong institutional on AC by comparing conservatism practices of U.K. firms that were also listed in the U.S. with the AC practices of U.K. companies not listed in the U.S. The study was based on the hypothesis that AC will highly establish for cross-listed companies than for companies that were only listed in the U.K. This was because cross-listed companies face a stricter enforcement regime. Moreover, cross-listed firms may capitalise on their listing on a US stock market to signal better quality reporting to investors and stakeholders. The study employed a matched-pairs research design. The results of the study show that earnings conservatism in U.K. cross-listed firms were significantly higher than earnings conservatism of firms with no cross-listing in the U.S. Furthermore, high-level AC practices of cross-listed U.K. was more prevalent in their early years of their cross-listing. The findings of the study imply that a stricter enforcement regime drives earnings conservatism and for that matter ensures FRQ

Using a sample of forty-six countries around the globe (including 3 Africa countries), Houque et al. (2012) document that mandatory IFRS adoption leads to earnings quality only in countries with stronger and stricter IP environment. They suggest that firms' financial reporting practices and behaviour is controlled by the macro settings of the country. This study has also been corroborated by Persakis and Iatridis (2016) who indicated that firms in countries with strong IP regime have higher earnings quality compared with firms in countries with feeble IP regime. Fang et al. (2016) assess the link between minority IP and the EM practices of firms and document that strong minority shareholders interest protection regime curtails accrual-based EM practices of firms but do not significantly affect REM practices of the firm.

To answer whether the strengthening of legal IP inhibits enterprises' EM practices, Zengfu and Min (2017) investigate both the accrual and real-based EM activities using a sample of Chinese listed firms. The two models used by the study reach different conclusions, that is, legal IP hurts accruals manipulation, but has a positive impact on REM. Further study finds that it is mainly to promote the state-controlled firms' REM, but has no significant effect on the non-state-controlled firms' REM.

Kouki (2018) analysed the impact of IP on EM practices pre and post IFRS adoption. Their study provides evidence to show that IP better determines EM practices post-IFRS. The findings further revealed that EM for the second reporting period is significant in jointly explained by both international standards and IP regime. Lourenço et al. (2018) also show that a higher level of perceived corruption in a country promotes earnings manipulations in emerging economies. However, corruption perception has no effect on earnings quality in the developed economies where minority shareholders' protection is stronger. They further show a negative relationship between IP regime and EM practices in developed countries contrary to the case for emerging countries.

Lemma et al. (2019) also provide evidence to show that a stable political environment minimises the extent of accrual-based EM practices of the corporate organisation but enhances REM practices of firms. However, political rights exacerbate accrual-based EM practices but do not affect REM practices of firms. They show further that the relationship between political rights and REM practices is more affirmed in a jurisdiction with a more stable political environment. Chen et al. (2020) analyse the implications of IP environment, market monitoring mechanism and stock market liquidity on the degree of EM. The study employed a sample of 430 companies from 34 countries cross-listed as American Depositary Receipts (ADRs). The primary findings are that ADR companies from countries with a stringent legal system, strong investor rights, more institutional shareholders, and more financial analysts following, have a lower probability of managing earnings. Legal factors, institutional holdings, and stock liquidity are particularly significant factors, suggesting that threats of lawsuits and monitoring by investors are an effective mechanism to reduce earnings manipulation. Results also indicate that cross-listed companies engage more in EM practices in the pre-listing period relative to the post-listing period and that stocks quoted in Over the Counter (OTC) market tend to have more EM than those in major exchanges.

Rika et al. (2020). investigate the determinants of earnings quality which included the indirect relationship between IP based on governance quality and earnings quality mediated by audit quality. It also included the implementation of corporate governance as well as the moderating effect of IFRS adoption on the link between audit quality and earnings quality. The research was conducted in the context of comparative countries between Indonesia and Singapore. Data analysis

in this study uses path analysis with the application of the Structural Equation Model - Partial Least Square (SEM-PLS). The study results provide evidence that "IP based on governance quality" in Indonesia negatively affect audit quality and corporate governance implementation. Meanwhile, "IP based on governance quality" in Singapore positively affect audit quality and corporate governance implementation. In Indonesia, the variable of IP based on government and audit quality does not affect earnings quality, but it does in Singapore. Corporate governance implementation has a positive effect on earnings quality for both Indonesia and Singapore. Empirical evidence for Indonesian auditing the quality of variables is not able to mediate the effect of investor quality-based IP on earnings quality. This result contradicts Singapore auditing that the quality of variable can mediate this effect. The variable of corporate governance implementation can mediate the effect between investor quality-based IP on earnings quality for both Indonesia and Singapore. This research concluded that the adoption of IFRS, both Indonesia and Singapore, can moderate audit quality and earnings quality.

The traditional view that enhancing legal, regulatory and enforcement system in a country always increases FRQ and audit quality have been challenged by Ewert and Wagenhofer (2019). Their challenge is based on the presumption that such a view does not consider the fact that the management strategies and auditors are jointly influenced in equilibrium and depend on each other. The researcher provides evidence to show that increasing the strength of the enforcement system enhances audit effort if the enforcement regime is relatively feeble and deteriorate audit effort if the reverse is true. The basis for this crowding out is that audit effort is determined not only by the enforcement system but also by the expected earnings management, which is restricted by a stronger enforcement system. This result has immediate implications on audit effort, which therefore enhance and then diminishes in enforcement intensity. They demonstrate empirically that quality financial reporting is not always enhanced with greater enforcement strength. It largely depends on how FRQ is measured.

Though there is apparent consistency in existing studies on the implications of IP on FRQ, researchers who have investigated this empirical question, seem to have only highlighted certain key control variables and left out the professionalism of management which is critical in ensuring FRQ. Management is primarily responsible to ensure that, corporate overall control environment and internal control system including financial information system, yield high-quality financial

reports to the company's stakeholders. Therefore, the quality of management will to a large extent drive FRQ. As the IP regime become stronger, FRQ will be enhanced if management is more susceptible to reputational damage. Such exposure to reputational damage is more grievous for ProMgt than non-ProMgt. It is therefore contented, as the IP regime become stronger, FRQ will be enhanced more for countries that rely more on ProMgt than those that rely less on ProMgt. This notwithstanding, studies that examined the implications of IP on financial reporting do not control for the effect of MgtQ.

Additionally, the generalisability of these studies to SSA could be questionable since they have focused on the major industrialized countries except for few studies (such as Leuz et al., 2003; Francis & Wang, 2008; Houque et al., 2012) that included few SSA countries. These few international studies subsume the SSA facet in global data. Therefore, the conclusions cannot be extended to the SSA economies because the level of economic development is expected to be an essential factor affecting FRQ. In addition, cultural and national variations are expected to affect the accounting practices in general and FRQ in particular. This study contributes to accounting literature on the effect of laws, regulations, minority shareholders interest protection and IP on FRQ by broadening evidence to the SSA countries and controlling for the effect of reliance on MgtQ.

Moreover, recent studies showing a relationship between IP and FRQ only employed a static regression framework which assumes a homogeneous parameter on firms located in a jurisdiction. Since many processes display dynamic adjustment over time, ignoring the dynamic aspect of data leads to serious misspecification biases in the estimation. Therefore, the results of the majority of these studies may be spurious due to a lack of attention to crucial research issues, such as endogeneity, variable measurements, survey biases and other methodological issues (Crane et al, 2017). For example, the question of endogeneity was rarely discussed and addressed in these extant studies. Endogeneity is a phenomenon where the error term of a model correlates with the explanatory variables (Khan et al., 2018). It might therefore not be outrageous to suggest that the conclusions of most of these studies must be held suspects for not treating this issue carefully (Crane et al., 2017). The problem is that endogeneity might result in inconsistent regression coefficients, thus leading to inappropriate conclusions about the significance of the variables (Ullah et al.,2018). This study builds on the limitations of the previous studies by incorporating a

state-of-the-art research design and estimation technique called the System Generalised Method of Moments (Sys-GMM) that permit a rapid accumulation of knowledge in the growing field of MgtQ. The use of the dynamic estimation model (Sys-GMM) specifically addresses the endogeneity problem.

2.2.6 The interactive effect of IP and AudQ on FRQ

The empirical literature on the joint effect of IP and AudQ on FRQ is limited and few existing studies focused more on Europe and the U.S. which have been acknowledged to have strong institutions, legal and regulatory environment. Studies such as Maijor and Vanstraelen (2006), Francis and Wang (2008), Van Tendeloo and Vanstraelen (2008) and Persakis and Iatridis (2016) appear to produce an inconclusive position on whether IP environment moderates the effect of AudQ on FRQ. Employing data from forty-two countries (including 4 from the African countries), Francis and Wang (2008) assert that a stronger and stricter IP regime or AudQ alone does not result in enhanced FRQ. They suggest that the IP regime moderate the relationship between AudQ and FRQ and the impact of IP on FRQ is also moderated by AudQ. They, therefore, suggest that firms in countries with stronger and stricter investment protection regimes will have better FRQ than firms in countries with weaker IP. However, the higher FRQ will be associated with firms using Big4 auditors. Francis and Wang (2008) elucidate that, in the lack of strict regulatory and enforcement regime auditors for fear of dismissal by a client may acquiesce to fraudulent behaviour of insiders. However, as the IP environment become stricter and stronger and there is a greater possibility that firms misreporting will be detected and auditors involved will be punished, auditor motivation changes from loss of a client to reputational damage. The cost of auditors to reputational damage will depend on the reputational capital of the audit firm. Being more susceptible to litigation, Big size audit firms have more propensity to restrict financial reporting manipulations as IP regimes become stronger and stricter.

Van Tendeloo and Vanstraelen (2008) document that privately held firms that use the services Big4 audit firms engage less in EM compared to firms that use the services of a non-Big4 auditor. However, they find further that such association exists only in a jurisdiction with strict tax laws and an enforcement system. In countries with strict tax laws and enforcement system, firms are regularly subjected to a tax audit by tax authorities. The financial statement serves as the basis to

determine corporate tax liabilities and therefore is prone to external scrutiny by tax authorities. Therefore where tax enforcement is strict Big4 audit firm for fear of detection and punishment and to protect their reputation will ensure a better quality of reported earnings and hence improved FRQ.

Finally, Persakis and Iatridis (2016)) based on data from advanced countries from 2005-2012 reported that the use of higher AudQ leads to higher earnings quality and FRQ in a jurisdiction with a strong IP regime and that low AudQ implies weakened earnings quality and FRQ in jurisdictions with feeble IP regime, irrespective of the financial crisis. From the above study, IP enhances FRQ when the firm uses the services of the Big4 audit firm. This indicates that in the absence of Big4 audit firm IP may not have a significant effect on firm financial reporting behaviour contrary to institutional theory perspective on the effect of coercive isomorphism.

These studies suggest that it is the interaction of a strong IP environment and AudQ that ensure FRQ. Thus, in a jurisdiction with a stricter legal and enforcement system (IP regime), FRQ will be enhanced. However, based on DeAngelo (1981) reputational hypothesis and the deep pocket hypothesis (Dye 1993; Lennox 1999), the enhanced FRQ will characterize firms audited by well-known Big international auditors who are more susceptible to litigation because of their greater wealth. Consequently, studies such as Newman et al. (2005); Francis and Wang (2008); Van Tendeloo and Vanstraelen (2008); Persakis and Iatridis (2016) suggest that strong IP interplays with auditor independence ensure FRQ.

Choi et al. (2018) investigate the implications of legal regime stringency of jurisdiction and the presence of a Big4 audit firm on firms' REM practices in an international setting. The study discussed three questions concerning the impact of AudQ and the legal environment on REM. The results of their study show that REM is positively linked to the strength of the legal regime and negatively associated with AudQ. The positive relationship with the strength of the legal regime is alleviated by the presence of a Big4 audit firm. They, therefore, conclude that albeit the legal system of a country is designed to deter AEM for IP, it cannot achieve a comparable impact concerning REM implying that the imposition of more stringent legal institutions alone is not sufficient to reduce EM, because managers can switch from AEM to REM. In this case, strengthening regulations to minimize accounting fraud may lead to an unintended deterioration of earnings quality.

On the contrary, Choi et al. (2008) provide evidence to show that, controlling for other fee determinants, audit fees charged by Big4 audit firm are higher than non-Big4 audit firms fees, for a given legal liability regime and regulatory environment. However, as countries' legal liability and regulatory regimes are strengthened, the Big4 premium decreases. Francis and Wang (2008) in contrasting their study argued that although Choi et al. assessed audit fees, exorbitant audit fees could be an indication of audit quality. Therefore, on the face value, the findings by Choi et al. (2008) could be delineated that, Big4 auditor are clearly of better quality as compared to non-Big4 audit firm in weak legal and regulatory regimes. Nonetheless, in a stronger legal and regulatory environment, there is less quality differentiation in audit service quality between Big4 and non-Big4 auditors. This according to Francis and Wang implies that, the gap in audit quality between Big4 auditors and non-Big4 auditors decreases than increase with the strength of the legal and regulatory environment. This can be explained by the possibility that non-Big4 audit firms are growing firms in a competitive environment and therefore building and guarding their reputation. As a result, they are more mindful of any tendencies that can torpedo their prospects in a jurisdiction with strict rules and an enforcement system.

Furthermore, Maijor and Vanstraelen (2006) provide evidence to show that, the level of EM is not uniform and that a stronger institutional environment can minimise the magnitude of EM, notwithstanding the type of auditor. Piot and Janin (2007) document that, the use of Big5 audit firms does not restrain EM practices. They indicate that the lack of differentiation among Big5 auditors' client and non-Big5 auditors' client AC practices is consistent with the lower possibility of litigation that the French Civil Code offer. They indicate that the lower risk of litigation has the likelihood of eliminating the deep pockets incentive for investors. Almarayeh et al. (2020) indicated that quality institutional settings influence the relationship between AudQ and EM practices of firms and for that matter FRQ.

Apart from the lack of agreement on the interactive role of quality auditor and IP environment on FRQ the existing few international studies focused more on developed economies and for that matter cannot be said to be representing SSA. Though Francis and Wang (2008) include few African countries in their study, their effects were subsumed in global data. It may be appropriate to get the true SSA picture on the interactive effect of AudQ and IP environment on FRQ. This

study contributes to the literature on audit quality IP and FRQ by expanding the evidence to the SSA countries.

Furthermore, extant studies discussed in the foregoing paragraph have mainly employed a static regression framework that assumes a homogeneous parameter on firms located in a jurisdiction. Since many processes display dynamic adjustment over time, ignoring the dynamic aspect of data leads to serious misspecification biases in the estimation. Consequently, another important point to note is that the results from extant literature are indubitably the result of the several methodological issues associated with the static regression framework. Therefore, the results of the majority of these studies may be spurious due to a lack of attention to crucial research issues, such as endogeneity, variable measurements, survey biases and other methodological issues (Crane et al., 2017). As an example, the question of endogeneity was rarely discussed and addressed in these extant studies. Endogeneity is a phenomenon where the error term of a model correlates with the explanatory variables (Khan et al., 2018). It might, therefore, not be outrageous to suggest that the conclusions of most of these studies must be held suspects for not treating this issue carefully (Crane et al., 2017). The problem is that endogeneity might result in inconsistent regression coefficients, thereby leading to inappropriate conclusions about the significance of the variables (Ullah et al., 2018). This study builds on the limitations of the previous studies by incorporating a state-of-the-art research design and estimation technique called the Sys-GMM that allows for a rapid accumulation of knowledge in the growing field of MgtQ. The use of the dynamic estimation model (Sys-GMM) specifically addresses the endogeneity problem.

2.2.7 Other Determinants of FRQ

FRQ has been an important feature that investors look out for before they make investment decisions. As a result, most firms and countries have put in place measures and policies to achieve the highest levels of FRQ. Given this, researchers have also made contributions by investigating and documenting the factors that drive the FRQ. Consequently, the literature is awash with many studies that document the determinants of FRQ. Literature categorised these actors into two different strands.

The first strand of literature investigated the factors that influence the FRQ of firms. The findings of studies on this subject matter have been discussed below based on the two different strands of literature.

2.2.7.1 Country-level factors

The first strand of literature on this subject matter concentrates on the determinants of financial reporting qualities in countries. Specifically, this group of literature looked at the country-specific factors that influence FRQ.

Macro-economic condition: A study conducted by As'ad (2019) to examine the determinants of FRQ among ASEAN countries documented a positive relationship between economic size, economic growth, corporate governance structure, leverage and the protection of minority interests. This study shows that countries that experience high economic growth and at the same time having policies that protect the interest of minority shareholders enjoy better FRQ. However, it has also been suggested that firms have a higher tendency to manipulate earnings upward during the better economic condition. This has been confirmed by some literature such as Conrad, Cornell and Landsman (2002) who suggest that firms are greatly motivated to avoid poor performance when the economy is good. As a result, they have higher tendencies to boost earnings numbers at such times.

Filip and Raffournier (2014) assess the impact of the 2008–2009 financial crisis on the EM behaviour of European-quoted companies. Their study shows a significant reduction in EM practices in most of the 16 sampled countries in the crisis years. The study also reports that the level of EM is related to the economic growth rate of a country.

Additionally, Cohen and Zarowin (2007) investigate the relationship between economic conditions and the likelihood for firms to manage earnings upwardly. The study discovered further that the propensity for firms to meet or beat earnings targets has a significant relation with the Price-Earnings ratio of the market. They provide evidence that aggregate conditions, as well as firm-specific effects, determines firms financial reporting behaviour as they show a negative relationship between economic growth and FRQ.

Nadhir and Wardbani (2019) have also shown that market capitalization is positively related to the quality of firms' financial report. This suggests that countries with a large stock exchange have quality FRQ. These findings are not unexpected because countries with large capital base and economic growth tend to have a good system to guide the financial reporting practices of their firms.

National Culture: Other studies have confirmed the relationship between national culture and the quality of financial report produce by firms. Such extant studies were based on the assumption that the behavioural tendencies of people are influenced by their national culture. For example, Paredes and Wheatley (2017) using Hofstede (1980) measures of cultural dimensions find that real earnings management is negatively related to individualism, masculinity, and uncertainty avoidance, but positively associated with power distance. Their results show further that IP laws are subsumed by national culture.

Hashim (2012) examine the FRQ implications of national culture and documents that no significant relationship between the race of board chairman and CEO and AQ. Curiously, the study show higher-quality financial report is associated with firms Malay directors dominance. From these findings, it can be inferred that FRQ is not free from national culture and is impacted largely by government policy. Other studies (such as Han et al., 2010; Douppnik, 2008; Nabar & Boonlert-U-Thai, 2007) have established that firms' financial reporting behavioural characteristics relate to the value systems (national culture) of the players in the financial reporting processes as well as the legal and enforcement environment of the country.

Foreign ownership: The ownership structure of firms have been found to influence corporate governance and FRQ (Lepore et al., 2019; Rashid 2020). Some studies have focused on the influence of foreign ownership on the quality of firms' financial report. According to An (2015) extant research indicate that foreign ownership can either enhance or deteriorate FRQ. It is suggested that the foreign ownership effect on FRQ is expatiated by two conflicting hypotheses (the active-monitoring hypothesis and the transient hypothesis). An (2015) provides evidence to show that foreign ownership has a positive and significant relationship with AC. This study results corroborate the active-monitoring hypothesis of foreign ownership, indicating that foreign ownership restrains managerial opportunism, and hence contribute to increasing FRQ. This study is supported by Guo et al. (2015) who provide evidence to show that foreign ownership improves

the accounting oversight of local firms by restraining financial reporting manipulation. Contrary to the evidence that foreign ownership has a positive association with FRQ and for matter supporting the active-monitoring hypothesis, Le et al. (2017) provide evidence that foreign ownership has a negative relationship with AC and for that FRQ among Vietnamese firms quoted on stock exchanges. Their study results lend credence to the transient hypothesis of foreign ownership which indicate that foreign investors with a low level of ownership do not have significant incentives to oversee managers.

Tax levels: Concerning the effect of tax on FRQ, Amidu et al. (2019) provide evidence to show that non-financial multinational corporations manipulate more earnings and engage in transfer pricing to avoid taxes. They suggest that the sensitivity of tax avoidance transfer pricing decreases as firms increase their EM. Susanto et al. (2019) examined whether tax aggressiveness is an indicator of EM using listed firms in the Indonesia Stock Exchange from 2013 – 2017. The study evidenced that tax aggressiveness, institutional ownership and leverage affect EM. They show that tax aggressiveness (companies with low tax rates) has a positive and significant effect on EM. These studies suggest a negative relationship between tax rate and FRQ. As a country total tax rate increases firm are expected to manipulate earnings to avoid payment of excessive tax. This will lead to lower FRQ. The possible negative association between tax and FRQ has also been empirically confirmed by Arachi and Bucci (2019) and Kuo and Lee (2019). These studies confirm that a country's tax rate motivates firms to manipulate financial statement to avoid payment of taxes.

2.2.7.2 Firm-level factors

The second strand of literature examined the firm-level factors that drive the quality of firm financial reporting. There have been extensive studies that have investigated the link between firm-specific attributes and FRQ of firms. The literature identifies firm-specific factors that influence FRQ to include profitability, firm size, leverage, audit quality, board efficiency, board characteristics and others. On the issue of the board characteristics, studies such as Fathi (2013) and Agyei-Mensah (2013) evidence that the board size and efficiency have positive impacts on firms' FRQ. Contrary to these findings, Byard et al. (2006) and Ostadhashemi et al. (2017) find a

negative relationship between board size and FRQ. These findings imply that a firm with a smaller board size would have a better FRQ.

Several studies have also provided evidence relating to the relationship between the size, leverage and profitability of firms. Evidence provided by Davidson et al. (2005) shows that leverage and DA have a positive relationship. Other studies such as Alsharairi (2012); Mahboud (2017); Jelinek (2007); Alsharairi (2012) confirm the positive consequence of debt on FRQ because the increased debt might reduce manager's discretionary spending, and in turn, reduces accrual EM. However, studies by Rahman and Ali (2006), Yang and Krishnan (2005) Ardison et al. (2012) provide no significant relations between firm leverage and EM. Jelinek (2007) therefore suggest that that leverage varies and leverage ratio may have different implications on EM.

In other studies, Haji and Ghazali (2013) show a positive link between firms' size and FRQ. In a similar study, Saeed and Saeed (2018) investigated the determinants of FRQ among three emerging economies in South East Asia. The authors documented that firm size, profitability and market-to-book ratio had a positive and insignificant effect on the FRQ. Herath and Albarqi (2017) also show a significant and negative relationship between an entity size and the quality of financial reports produced by them. Other studies (such as Hope et al., 2011; Hashim, 2012; Ali et al., 2015) have shown that FRQ is significantly and positively associated with firm size.

Nadhir and Wardbani (2019) also contributed to the advancement of studies on this subject. The authors examined the impact of country and firm-specific factors that influence the financial reporting practices of firms in ASEAN countries. Using a least square regression method, the authors provided evidence to show a positive relationship between firm size, operating cash flow and market capitalization and FRQ. The evidence provided by the authors further demonstrated that audit quality, leverage, firm growth and loss avoidance ratio are negatively related to FRQ. In a similar study, As'ad (2019) found a negative relationship between firms' size and the FRQ of these countries.

In the banking sector in Lebanon, Mahboud (2017) examine the driving factors of FRQ of 22 banks. The authors employed OLS as their main estimation technique and demonstrated that ownership structure, financial leverage and board size of the board significantly and positively relate with the FRQ. The authors further demonstrated that the size of the banks, board

independence and the level of profitability had no impact on their FRQ. This study has demonstrated that firms can achieve high FRQ when they increase the proportion of debt in their capital structure, diverse ownership and larger board size.

In a more recent study, Irwandi and Pamugkas (2020) examined the factors that influenced the FRQ of 287 public companies in Indonesia. The results demonstrated a positive relationship between board expertise and audit quality on one side and FRQ on the other side.

From the foregoing discussions, literature has documented that specific-firm features such as the size of firms, the corporate governance structure, ownership structure, industry and firms' performance influence their FRQ. The majority of these studies such as those of Uyar et al. (2013), Liapis and Thalassinos (2013), Chakroun and Hussainey (2014) and Nadhir and Wardhani (2019) documented positive relationships between these variables and FRQ. On the other hand, some studies including those of As'ad (2019) and Nadhir and Wardhani (2019) also found negative relationships between FRQ and some firms-specific variables such as firm size, leverage and audit quality.

It is interesting to note that studies on the determinants of FRQ do not converge. This shows that the debate on the determinants of FRQ is far from over. This may be a result of some factors that peculiar to some firms and countries. Another important theme from the literature is that majority of this literature concentrated in the developed countries. Other studies that focused on developing countries were also limited to Asia. In addition, these studies used similar variables in a different context. It remains whether the same conditions prevail in the African context. Another issue that is yet to be addressed is whether other factors such as IP, board efficiency and audit quality which were previously ignored in similar studies influence the FRQ of firms and countries. The uniqueness of this study lies in the inclusion of additional contribution by including factors such as the reliance on ProMgt, the strength of IP, board efficiency and audit quality to investigate whether they influence FRQ.

2.3 Chapter Summary

This chapter comprehensively reviewed extant literature on IP, audit quality and FRQ. The chapter covered conceptual review where the key variables of study (IP, audit quality and FRQ) and their measurement were discussed.

The chapter also highlighted the underlying theoretical perspective of the study. The theoretical literature concentrated on the agency theory, the institutional theory and the Upper Echelon theory to explain the role of management auditors and IP respectively on the behaviour of corporate insiders regarding FRQ. The agency theory was used to explain the tendency for insiders to expropriate outside investors and conceal such practice through misleading financial reporting. Agency theory was also used to explain the role of an auditor in minimizing such corporate behaviour. On the other hand, institutional theory explained the importance of culture, institutions and laws as a major influence on corporate insider behaviour and the relationship between insiders and investors. The Upper Echelon theory underpins the role of management characteristics in the financial reporting processes of firms.

The Chapter also discussed empirical literature on the relationship between MgtQ and FRQ; AudQ and FRQ; IP and MgtQ; IP and FRQ; and the interactive effect of IP, AudQ on FRQ. The literature review showed that studies on the influence of MgtQ on FRQ are limited. However, a forcefully emerging conclusion from the recent exploration is that capable managers are less likely to manipulate financial statement opportunistically as high-quality managers' exhibit higher AQ, fewer internal control violation and fewer restatements. Studies that have examined the determinants of FRQ linked FRQ to audit quality. Though most literature suggests that FRQ is enhanced when reporting entity is audited by one of the Big size audit firms than non-Big size audit firms, the discussions have generally been inconclusive.

Literature on the FRQ implications of IP regime are scant but the limited studies suggest that firms operating in countries with strong IP environment produce high FRQ than firms in feeble IP regime. This is because stronger and stricter IP inhibits insiders' ability to acquire private control benefits, which reduces their incentives to mask firm performance. Studies on the interactive effect of IP, audit quality and FRQ have produced inconsistent results. Apart from the lack of consensus on the interactive role of AudQ on the effect of IP environment on FRQ, the existing few

international studies focused more on developed economies and for that matter cannot be said to be representing SSA. The next chapter will discuss the methodological approach and the models for the study.

CHAPTER THREE

METHODOLOGY OF THE STUDY

3. Introduction

The preceding chapter provided a description and measurement of the key concept of the study and the underpinning theories, and identified the gaps in the literature on the relationship between MgtQ and FRQ; IP and Mgt; AudQ and FRQ and an IP regime and FRQ. It also reviewed the existing literature and identified the gaps in how a country's IP regime and AudQ interact to affect firms' FRQ. These gaps led to questions on the conclusiveness of the findings from the existing study and the generalisability of existing studies to SSA, thereby making it relevant to determine the drivers of financial statement numbers from an SSA perspective.

The research design applied to address the study's research question is outlined in this chapter. A quantitative research approach was adopted with a specific methodology for each research objective, except that a methodology was developed for the third, fourth and fifth objectives due to similarities in the variables and the adequacy of an empirical model to address the research questions. Therefore, three specific methodologies were developed for the entire study. Section 3.1 explain the research paradigm where the philosophical basis of the research is established to justify the choice of the research design. Section 3.2 of this chapter delineates the estimation technique adopted for the empirical testing of the various objectives of the study. It justifies the adoption of a dynamic panel data model. In Section 3.3, the methodology for examining the relationship between MgtQ and FRQ is explained. The methodology for examining the association between IP and MgtQ is provided in Section 3.4 of this chapter. Section 3.5 of this chapter describes the methodology for determining the interactive effect of AudQ and IP on FRQ. This section addresses the relationship between AudQ and FRQ, IP and FRQ and the effect of IP and AudQ on FRQ.

The pre-estimation techniques and post-estimation technique are discussed in sections 3.6 and 3.7 of the study. Under these section normality test, multicollinearity test, test of stationarity is discussed. Finally, Section 3.8 summarises the entire chapter.

3.1 Research paradigm

In social science, researchers begin their studies by first establishing the philosophical basis of their research. The philosophical basis establishes the researchers' worldview of the sources and nature of knowledge (Bell, 2014). This philosophical view of researchers is termed a research paradigm. In the context of social science, a research paradigm is the fundamental set of beliefs that directs the actions and defines the worldview of a researcher (Kaushik & Walsh, 2019). Social science researchers consider the philosophical position of a study as the essential starting point (Trigg, 1985) since 'where you stand influences what you see' (Appiah, 2013). The term 'paradigm' is generally used to represent the collective belief, generalisations and values of a community of scholars and specialists concerning the source, nature and reality of knowledge (Alharahsheh & Pius, 2020). Kekeya (2019) provides two main paradigms in social science research comprising positivism and interpretivism.

The positivist research approach is described by a firmly organised design. In this context, research questions are highly specific, mostly taking the form of hypotheses (Panhwar et al., 2017). This suggests that in a positivist research paradigm, data are structured in advance, mostly taking the form of hypotheses. In the views of Damak (2019), positivist research establishes expectations or a priori beforehand, thereby glaciating the understanding, prior knowledge and perspective of the researcher. An interpretive research paradigm, on the other hand, takes the position that data occupies a key role in the development of theories and knowledge, hence data are mostly unstructured and takes shape at the collection point (Ryan, 2018). In this case, categories of data collection or themes emerge during the data collection and analysis phase, emphasising that knowledge is context-specific.

Park et al. (2020) maintain that a positivist research paradigm assumes a realist view, while the interpretive approach takes the constructivist or idealistic view. From the positivist paradigm viewpoint, the reality is regarded as a tangible structure and there is one and incontrovertible truth (Walsh, 2019). An interpretive research approach also considers reality as a prediction of human imagination, which prevails only in the consciousness of the researcher (Gichuru, 2018). This stresses that the interpretivism research paradigm admits the likelihood of several truths. Therefore, researchers who employ the interpretive approach challenge the beingness of the objective truth. The discussion clearly shows the difference between the positivist and interpretive

research approaches. However, Irshaidat (2019) observes that the difference may not be apparent, hence some researchers propose the terms ‘exploratory’ and ‘confirmatory’ to characterise these two research paradigms.

In this context, positivist research can be described as confirmatory, while interpretivism research is exploratory. The positivist research approach is, therefore, related to theory testing, while the interpretive research approach relates to the generation of theory (Chua, 2019; Ryan, 2018). This underlines that the positivist research approach is used to verify or test theories, while the interpretive research approach is used to generate theories. The highlights of the foregoing discussion are that within the data collection methods, positivism assumes a quantitative data collection method, while interpretivism assumes qualitative data collection methods (Damak, 2019; Walsh, 2019).

Based on the foregoing discussion, this study was conducted within the framework of a positivism paradigm. This study assumed that the existence of objective realities is incontrovertible. Hypotheses were developed based on prior knowledge and they were tested using structured methodological and philosophical approaches. The study test the Agency Theory, Institutional Theory and Upper Echelon Theory on the financial reporting behaviour of firms in the SSA context. Similarly, data used in this study were structured in advance, that is, categories or expectations were established beforehand (a priori assumptions). Thus, the study used philosophical approaches to create knowledge that is characterised by the emphasis on empiricism and the testing of theories.

3.2 Sampling techniques

A sample is the subset of individuals within the identified population selected for a study. Therefore, sampling is the process of selecting a sample or a sub-group for a study (Hair et al., 2015). This can be done either through the probability method (random selection) which allow for strong statistical inferences about the whole group or the non-probability method (non-random selection) which is based on convenience or other criteria allowing for easy data collection. The sampling for this study was based on two criteria: first, the country should have its basic data on the datasheet of the Global Competitive Index of the World Economic Forum (WEF); and the

sampled firms in the selected country should be listed on the stock market of the country and should have data on Bromberg database. These two criteria were used because of data availability and reliability.

Generally, a large sample can help reduce sampling errors and improve the generalisability of research findings. Davies and Hughes (2014) posit that sample size influences the statistical power of a model by influencing standard errors. Since the size of the sample used for a study influence estimation precision (Eriksson & Kovalainen, 2015), all the Fourteen stock markets on African Market.com were considered for the study. However, the inclusion of the companies was subject to the firms being listed on stock for at least five (5) continuous years. Two (2) additional criteria were adopted in the determination of the final sample. Firstly, the firms had to have at least five (5) years of annual reports to facilitate a longitudinal analysis. Secondly, the share price of each firm had to be available in Bloomberg for both the year before and after the disclosure. These additional restrictions were necessary so that a longitudinal analysis could be performed.

3.3 Analytical framework and estimation techniques

In general, this study employed panel data methodology for the analysis. Panel data methodology is used because it enables for cross-sectional observations over several periods and also moderate for individual heterogeneity due to unobservable factors, which, if unconsidered in time-series or cross-section estimations will lead to biased results (Baltagi, 1995). The general model for panel data model specified as:

$$Y_{it} = a + \beta X_{it} + e_{it} \quad (26)$$

Where subscript i is the cross-sectional dimension of the data and t denotes the time-series dimension. Y_{it} denotes the dependent variable in the model. X connotes the set of explanatory or independent variables in the estimation model. a is the constant and β denotes the coefficients. e_{it} is the error term. According to Baltagi (2005), most panel data applications have been limited to a single regression with error components disturbances which is explained as:

$$Y_{it} = \beta X_{it} + \mu_i + \lambda_t + v_{it} \quad (27)$$

where the subscript i denotes individuals and t represents the time. Y_{it} denotes the dependent variable

in the model. X_{it} represents a vector of observations on k explanatory variables. β is a vector of unknown coefficients. u_i is an unobserved individual-specific effect. y_t denotes an unobserved time-specific effect. v_{it} is a zero-mean random disturbance with variance δ_v^2 .

3.3.1 Dynamic Panel Framework

This study employed the use of dynamic panel methodology for the analysis. The use of the dynamic panel methodology enables the researcher to measure the speed of adjustment (via the lagged dependent variable) using the partial adjustment-based approach. The dynamic panel methodology also accounts for individual effects which mostly are the cross-sectional effects as expatiated by Baltagi, (2005), even though the time-specific effects can also be included. As suggested by Baltagi, (2005), the dynamic panel considers individual impacts which are mostly the cross-sectional effects albeit the time-specific effects can also be included. The dynamic error components regression is specified by the use of a lagged dependent variable among the regressors. This is formulated as follows:

$$Y_{it} = Y_{it-1} + \beta X_{it} + \mu_i + v_{it} \quad (28)$$

where Y_{it} is the dependent variable in country i for time t , Y_{it-1} is the dependent variable in the previous period, βX_{it} is a vector of explanatory variables, i is individual and t is time?

The inclusion of lags of the dependent variable provides an adequate characterisation of many economic dynamic adjustment processes (Bun & Sarafidis, 2013).

However, the inclusion of the lagged dependent variable makes the OLS estimator bias and inconsistent even if there is no serial correlation in the v_{it} 's. This occurs as a result of the fact that the lagged dependent variable is correlated with the error term. A condition created by the fact that Y_{it} is a function of μ_i . The fixed-effect model estimator does not completely help to solve the problem created by the autoregressive nature of dynamic panel models, even though the within transformation wipes out the μ_i s. Moreover, the random effects of General Least Squares Regression (GLS) are not helpful in a dynamic panel model. As the quasi-demeaning that is performed when using GLS still makes the Y_{it-1}^* be correlated with μ_i (See Anderson & Hsiao, 2003; Baltagi, 2005; Baltagi et al., 2013; De Blander, 2020; Fingleton & Pirotte, 2014; Olubusoye

& Olajide, 2016; Sevestre & Trognon, 1985). Therefore, due to the various endogeneity problems, least-squares based inference methods, in other words, fixed effects or random effects estimators are biased and inconsistent.

One way of getting around this problem, as proposed by Anderson and Hsiao (1981), is to first differentiate the model to eliminate the μ_i and then apply an instrumental variable (IV) method. The use of an IV method or Generalised Method of Moment (GMM) produces consistent parameter estimates for a finite number of a time, T , and a large cross-sectional dimension, N (see Arellano & Bond, 1991; Arellano & Bover, 1995; Blundell & Bond, 1998). However, even though this method leads to consistent results, it does not necessarily lead to efficient estimates as not all available moment conditions are used (Ahn & Schmidt, 1995) and do not take into account the differenced structure on the residual disturbances (Baltagi, 2005). Given the weakness in the methodology proposed by Anderson and Hsiao (1981) and Arellano and Bond (1991) suggest that after taking the first difference to eliminate the individual effects, one should then use all past information of the dependent variable as instruments. This, they argue, gives a more efficient estimation procedure. They make this proposition because additional instruments can be obtained if one uses the orthogonality conditions that exist between Y_{it} and v_{it}

them

Based on the foregoing discussion, the estimations of the equations for all the objectives of the study were done by employing a panel data analysis, which involved the use of observations on cross-sections of units over many periods. This study, therefore, drew on the qualities of panel data analysis and employed a dynamic estimation technique. As an example, Jaba et al. (2017) emphasise that panel data encompass data that are more productive and of variability. As a result, they moderate the challenges associated with collinearity among the independent variables and further enhance the efficiency of the estimation. In panel data analysis, firms are also recognised as heterogeneous, which allows unobservable heterogeneity to be controlled for and, therefore, allowing the elimination of biases arising from the presence of individual effects (Khan et al., 2018). Consequently, panel data enable researchers to handle the problem of omitted variables of regression results and reduce the incidence of endogeneity.

The study employs a dynamic estimation technique called System Generalised Method Moment (Sys GMM) to estimate the parameters of the model. Blundell and Bond (1998) and Arellano and Bond (1991) recommend the use of lagged differences as instruments to estimate equations at levels. The use of System GMM to estimate equations has unique advantages in many ways. The major benefit of estimating in levels is that the lagged differences are informative about the current variables even when the autoregressive coefficients approach unity (Ullah et al., 2018). Asongu and Acha-Anyi (2019) argue that the GMM estimation method does not eliminate cross-country variations when it uses a panel data structure. The estimation strategy considers endogeneity by accounting for simultaneity in the explanatory or independent variable through an instrumentation process on the one hand and moderating for the unobserved heterogeneity with time-invariant indicators on the other hand. Inherent biases that are characteristic of the difference estimator are rectified with the system estimate.

Moreover, System GMM can solve the problems of measurement errors, omitted variable bias, unobserved panel heterogeneity and the endogeneity of regressors (Blundell & Bond, 1998). Because panel data have endogeneity problems, Arellano and Bover (1995) suggested the use of instrumental variables (IV) to assume the generalised methods of moments (GMM) of corresponding moment conditions. This suggests that System GMM can eliminate the individual fixed effects by first differencing regression equations. The System GMM then considers the lagged variable as a corresponding IV of endogenous variables in the difference equation (Bond et al., 2001).

The study, therefore, employed System GMM to estimate the model, given its unique advantages identified in the preceding discussion. The use of the Sys GMM addresses the methodological gap identified in existing literature as earlier discussed.

3.4 Methodology on the relationship between MgtQ and FRQ

This section delineates the specific methodology for examining the association between MgtQ and FRQ in SSA. It explains the sample and data for the study and the measurement of variables. It also provides the empirical model for testing the relationship between MgtQ and FRQ.

3.4.1 Sample selection

Table 3.1: Countries in the sub-Saharan African Region

Angola	Gabon	Nigeria	Benin	The Gambia
Rwanda	Botswana	Ghana	Chad	Burkina Faso
Guinea	Senegal	Burundi	Guinea-Bissau	Seychelles
Cameroon	Kenya	Sierra Leone	Cape Verde	Lesotho
South Africa	Central Africa Republic	Liberia	South Sudan	Sao Tome and Principe
Madagascar	Swaziland	Comoros	Malawi	Tanzania
DRC	Mali	Togo	Republic of Congo	Mauritania
Uganda	Cote d'Ivoire	Zambia	Equatorial Guinea	Mozambique
Zimbabwe	Eritrea	Namibia	Ethiopia	Niger
Mauritius				

Source: UNDP (2019)

This study employed data from SSA to fill the contextual gaps in existing studies. The focus on SSA is premised on the fact that the AU is making efforts to integrate financial markets in Africa and critical of these efforts will be FRQ emanating from each member country, as emphasised by the APRM criteria. This study excluded the North African countries due to their significant cultural and financial management practices difference from SSA. According to the United Nation Development Programmes (UNDP), there are 46 countries in the SSA region, as shown in Table 3.1 above.

From AfricanMarket.com, there are 14 active stock markets in the sub-region. Consequently, only countries with an active stock exchange were selected for this objective. Bourse Regionale des Valeurs Mobilières (BRVM) were excluded from the study. This is because BRVM is a bloc stock exchange serving the four West African Economic and Monetary Union (WAEMU) countries, namely Cote d'Ivoire, Burkina Faso Mali, Niger Senegal and Togo, and, therefore, firms listed on this market cannot be linked to any particular country factor.

Table 3.2: Sample Countries, Stock Market and Number of Firms

S/n	Country	Stock Market	Market	Number of sampled firms	Firm year Observation
1	Botswana	Botswana Stock Exchange	BSE	13	130
2	Ghana	Ghana Stock Exchange	GSE	21	210
3	Kenya	Nairobi Stock Exchange	NSE	33	330
4	Malawi	Malawi Stock Exchange	MSE	5	50
5	Mauritius	Stock Exchange of Mauritius	SEM	30	300
6	Namibia	Namibian Stock Exchange	NSX	18	180
7	Nigeria	Nigerian Stock Exchange	NGSE	56	560
8	Rwanda	Rwanda Stock Exchange	RSE	3	30
9	South Africa	Johannesburg Stock Exchange	JSE	215	2150
10	Tanzania	Dar es Salaam Stock Exchange	DSE	14	140
11	Uganda	Uganda Securities Exchange	USE	8	80
12	Zambia	Lusaka Stock Exchange	LUSE	14	140
13	Zimbabwe	Zimbabwe Stock Exchange	ZSE	42	420
Total				472	4720

Source: Author's Characterisation

Consistent with prior research such as Baik et al. (2018); Francis and Wang (2008), all firms from the finance (bank, insurance, unit trusts and finance firms) sector were excluded from this study. Firms in this sector are subject to different regulatory requirements that could unduly affect abnormal accruals and audit fees paid. Being strictly controlled by regulations and governments cause these companies to have a different environment for engaging in financial statement malpractices from other industries (Kitiwong, 2014). In addition, as noted by Becker et al. (1998) and DeFond and Subramanyam (1998), the computation of discretionary accrual remains a problem for firms in the financial sector. Only companies that had sufficient financial statement data available to calculate reporting quality indicators for at least five consecutive years from 2007 to 2017 were included. Firms listed on BRVM were excluded because financial reports of these firms were not in English and not country-specific. The final sample, therefore, consisted of 472 firms across 13 SSA countries from 2007 to 2017. The unavailability of data for some years meant that the study relied on three thousand, five hundred and ninety-seven (3597) firm-year

observations. Table 3.2 provides the countries selected, their stock market and their respective number of firms selected for the study.

3.4.2 Data

The firm-level data used for the measurement of FRQ and other firm-level variables for this study were taken from the annual reports of the sampled firms. The study employed up to 10 years' historical financial data from the annual reports of publicly traded companies around SSA. The use of listed firms was primarily due to data availability and reliability.

Country-level data were also taken from the online edition of the Global Competitive Index in the Global Competitiveness Report published by the WEF. The study also employed data from Hofstede's Values Survey Modules (VSMs) to measure culture.

3.4.3 Measurement of variables

3.4.3.1 Measurement of MgtQ

Management quality was measured by two proxies, namely reliance on ProMgt and BodEff. Reliance on ProMgt, a measure of a country's use of talents, was adopted from the Global Competitive Index by the WEF. Reliance on ProMgt measured the extent a country relies on professionals in senior management positions and ranged from 1 to 7 where 1 = usually relatives or friends without regard to merit and 7 = mostly professional managers are chosen for merit and qualifications. This was sourced from the Global Competitive Index in the Global Competitiveness Report published by the WEF.

BodEff, a measure of management effectiveness and efficiency, was also adopted from the Global Competitive Index by WEF and it measured the extent to which management is accountable to investors and boards of directors in a country. This ranged from 1 to 7 where 1 = not at all and 7 = to a great extent. All the variables were presented in their natural log form to control for heteroskedasticity and also helped in the determination of their elasticities.

3.4.3.2 Measurement of FRQ

In assessing the relationship between MgtQ and FRQ, FRQ was measured by a country-level FRQ index (FRQI) computed from each stock markets selected for the study for each period. The study adopted Tang et al. (2016) model of the FRQ index to measure country-level FRQ. This model comprises six dimensions of accounting and auditing quality to determine the national FRQI index. These dimensions include the LAR, PDAR, AR, QAOR, NBAR and AFR.

LAR for capital market *k*, year *t*, was as follows:

$$LAR_{k,t} = \frac{\text{Total number of small profit firms}_{k,t}}{\text{Total number of small loss firms}_{k,t}} \quad (29)$$

PDAR for capital market *k*, year *t*, was measured as follows:

$$PDAR_{k,t} = \frac{\text{Total number of small profit increase firms}_{k,t}}{\text{Total number of small profit decrease firms}_{k,t}} \quad (30)$$

AR was measured as the median observation of firm-level *AR* of firms in a capital market was used for this variable (Leuz et al., 2003). *AR* was measured using total accruals divided by lagged total assets (in other words, the *AR*), as formulated below:

$$AR_{k,t} = \frac{(\Delta CA_{i,t} - \Delta Cash_{i,t}) - (\Delta CL_{i,t} - \Delta STDEBT_{i,t} - \Delta TP_{i,t}) - Dep_{i,t}}{TA_{i,t-1}} \quad (31)$$

where $\Delta CA_{i,t}$ is the change in current assets for firm *i* at year *t*, $\Delta Cash_{i,t}$ is the change in cash for firm *i* at year *t*, $\Delta CL_{i,t}$ is the change in current liabilities for firm *i* at year *t*, $\Delta STDEBT_{i,t}$ is the change in short-term debt included in current liabilities for firm *i* at year *t*, $-\Delta TP_{i,t}$ is the change in income taxes payable for firm *i* at year *t*, $Dep_{i,t}$ is the depreciation and amortisation expenses for firm *i* at year *t* and $TA_{i,t-1}$ is the total assets for firm *i* at year *t* - 1. A smaller *AR* suggests

reduced managerial discretion and earnings management and, therefore, a higher FRQ of the capital market in question.

QAOR for the capital market was measured as:

$$QAOR_{k,t} = \frac{\text{Total number of qualified audit opinions}_{k,t}}{\text{Total number of the auditees}_{k,t}} \quad (32)$$

NBAR for the capital market was measured as:

$$NBAR_{i,t} = 1 - \frac{\text{Total number of firms that are audited by Big Four auditors}_{k,t}}{\text{Total number of the auditee}_{k,t}} \quad (33)$$

AFR increases in the quality of financial reporting of the capital market and it was measured as the median observation of firm-level AFR was used (rather than the average) for capital markets in this study as:

$$AFR_{i,t} = \frac{\text{Audit fees}_{i,t}}{\text{Total assets}_{i,t}} \quad (34)$$

FAQ Index computation

The overall FRQ index is calculated for each capital market from the values of the six individual indicators per capital market per year. The capital market is first ranked according to the resultant values of the six individual indicators computed. All the six dimensions have a negative association with FRQ except audit fees ratio (AFR). For each dimension other than AFR, the market with the lowest (highest for AFR) indicator value was given a score of 100, and the scores of other markets were calculated as a percentage of the maximum score. The scores for each indicator were equally assigned a weight and aggregated, to calculate the yearly FRQ index for each capital market. The FRQ index for a capital market for each year is the arithmetic average of the scores of six indicators for each year.

3.4.4 Control variables

The study controlled for the effect of culture, economic and business environment features, which were established in the literature as important mediating factors (Nabar & Boonlert-U-Thai, 2007; As'ad 2019). These variables included economic growth, taxation, national culture, economic size and level of foreign ownership. Other firm-level variables controlled for were firm size, firm growth, profitability and leverage, which have been shown by research to affect FRQ (Persakis & Iatridis, 2016). The measurement of the control variables are explained in Table 3.3

3.4.5 Empirical Estimation Model

The relation between MgtQ and FRQ was examined using dynamic panel regression Equation (35) in a system GMM. System GMM helped solve the problems of measurement errors, omitted variable bias, unobserved panel heterogeneity and the endogeneity of regressors as explained in the earlier paragraph. since panel data have endogeneity problems, Arellano and Bover (1995) suggested the use of instrumental variables (IV) to assume the generalised methods of moments (GMM) of corresponding moment conditions. This suggests that System GMM can eliminate the individual fixed effects by first differencing regression equations. The System GMM then considers the lagged variable as a corresponding IV of endogenous variables in the difference equation (Bond et al., 2001). System GMM also caters for the problem of autocorrelation which may be caused by the inclusion of the dependent variable. Regression equation (35) is specified below and the variables shown therein are explained in table 3.3.

$$FRQI_{it} = \beta_1 FRQI_{it-1} + \beta_2 ProfMgt_{it} + \beta_3 BodEff_{it} + \beta_4 EcoGrow_{it} + \beta_5 Tax_{it-1} + \beta_6 NatCulture_i + \beta_7 EcoSize_{it} + \beta_8 FOwner_{it} + \beta_9 FirmSize_{it} + \beta_{10} FirmGrow_{it} + \beta_{11} ROA_{it} + \beta_{12} LEV_{it} + \gamma_i + \lambda_{it} \quad (35)$$

Table 3.3: Description of Variables – Regression Equation (35)

Variable	Variable name	Measurement	Expected sign
FRQI	National FRQ Index	Tang, et al., (2016) model	
ProMgt	Reliance on Professional Management	The extent a country rely on professional in senior management positions and ranges from 1 to 7 where 1 = usually relatives or friends without regard to merit and 7= mostly professional managers chosen for merit and qualification. This is sourced from WEF	Positive

BodEff	Board Efficacy	The extent to which management is accountable to investors and board of directors in a country and ranges from 1 to 7 where 1 = not at all; 7 = to a great extent. This is sourced from WEL	Positive
EcoSize	Economic Size	Measured as the natural logarithm of a country's total Gross Domestic Product (GDP)	Positive
NatCulture	National Culture	National cultural dimension adopted from Hofstede's Values Survey Modules (VSM) measured by the level of individualism	Negative
FOwner	Prevalence of foreign ownership	Measured as the extent foreign ownership of firms in a country and ranges from 1 to 7 where 1= not at all and 7 = to a great extent. This is sourced from WEL	Positive
EcoGrow	Economic Growth rate	Gross Domestic Product in year t minus Gross Domestic Product in year $t-1$ and scaled by Gross Domestic Product in year $t-1$, for country i in year t	Positive
Tax	Total Tax rate	This variable is a combination of profit tax (% of the profit), labour tax and contribution (% of the profit) and other taxes (% of the profit). This is sourced from WEL	Negative
FirmSize	Firm Size	Firm size is the capital market's average of the firm's level natural logarithm of total assets	Positive
FirmGrow	Firm growth rate	The firm growth rate is the capital market's average ratio of the firm-level growth, which equal (current sales-lagged sales) lagged sales	Positive
LEV	Financial leverage	Financial leverage is the capital market's average ratio of the firm-level financial leverage, which equates to total liabilities to total assets.	Negative
ROA	Profitability	Profitability is the capital market's average of the firm-level return on assets which equals net profit to lagged total assets.	Positive

Source; Author's Characterisation

3.5 Methodology on IP and MgtQ

The focus of this section was to assess, empirically, the relationship between IP and MgtQ, which is yet to be considered in the empirical literature. The relationship between IP and MgtQ was examined using data from SSA and within an Arellano-Bond dynamic framework.

3.5.1 Study sample selection

This study excluded the North African countries and focused on the Saharan subregion of Africa. The North African countries are excluded due to their significant cultural and financial management practices difference from SSA.

The United Nation Development Programmes (UNDPs) put the number of countries in the SSA region to be 46, as shown in Table 3.3, whereas the World Bank Group put the number of SSA countries at 49. However, 31 of these SSA countries have their basic data on the Global Competitive Index dataset by the WEF from which data was sourced for this study. The sample represented 63% of UNDP's number of SSA countries and 67% of the World Bank figures. This study was based on 31 selected countries in SSA, as shown in Table 3.4 below. All these countries were studied over 15 years from 2004 to 2019.

Table 3.4: Countries in the Sub-Saharan African Region

Angola	Gabon	Nigeria	Benin	The Gambia
Rwanda	Botswana	Ghana	Chad	Burkina Faso
Guinea	Senegal	Burundi	Guinea-Bissau	Seychelles
Cameroon	Kenya	Sierra Leone	Cape Verde	Lesotho
South Africa	Central Africa Republic	Liberia	South Sudan	Sao Tome and Principe
Madagascar	Swaziland	Comoros	Malawi	Tanzania
DRC	Mali	Togo	Republic of Congo	Mauritania
Uganda	Cote d'Ivoire	Zambia	Equatorial Guinea	Mozambique
Zimbabwe	Eritrea	Namibia	Ethiopia	Niger
Mauritius				

Source: UNDP (2019)

Table 3.5: Sample Countries for IP and MgtQ

s/n	Code	Country	Year observation	s/n	Code	Country	Year Observation
1	AGO	Angola	15	17	LBR	Liberia	15
2	BEN	Benin	15	18	MUS	Mauritius	15
3	BWA	Botswana	15	19	MOZ	Mozambique	15
4	BFA	Burkina Faso	15	20	NAM	Namibia	15
5	BDI	Burundi	15	21	NGA	Nigeria	15
6	CMR	Cameroon	15	22	RWA	Rwanda	15
7	CPV	Cape Verde	15	23	SEN	Senegal	15
8	TCD	Chad	15	24	SYC	Seychelles	15
9	CIV	Côte d'Ivoire	15	25	SLE	Sierra Leone	15

10	ETH	Ethiopia	15	26	ZAF	South Africa	15
11	GAB	Gabon	15	27	SWZ	Swaziland	15
12	GMB	The Gambia	15	28	TZA	Tanzania	15
13	GHA	Ghana	15	29	UGA	Uganda	15
14	GIN	Guinea	15	30	ZMB	Zambia	15
15	KEN	Kenya	15	31	ZWE	Zimbabwe	15
16	LSO	Lesotho	15			Total	465

Source: Author's Characterisation

3.5.2 Data

All the data were taken from the online edition of the Global Competitive Index of the WEF, World Governance Indicators by Kaufmann et al. (2017) and Hofstede's VSMs. The variables for MgtQ were taken from the Global Competitive Index in the Global Competitive reports by the WEF. The variables for IP were taken from the Global Competitive Index of the WEF. The IP variables were sourced from the Global Competitive Index, which was a strength of auditing and reporting standards, protection of shareholders' MinInt, the LRI and RegSE. Except for data on cultural dimension, which was sourced from Hofstede's VSMs, all other control variables were sourced from the Global Competitive Index.

3.5.3 Measurement of variables

3.5.3.1 Measurement of MgtQ

Management quality was measured by two proxies, namely reliance on ProMgt and BodEff. Reliance on ProMgt is a measure of a country's use of talents and was adopted from the Global Competitive Index by the WEF. Reliance on ProMgt measured the extent to which a country relies on professionals in senior management positions and ranged from 1 to 7 where 1 = usually relatives or friends without regard to merit and 7 = mostly professional managers are chosen for merit and qualifications. This was sourced from the Global Competitive Index in the Global Competitiveness Report published by the WEF.

BodEff, a measure of management effectiveness and efficiency, was also adopted from the Global Competitive Index by the WEF and it measured the extent to which management is accountable to

investors and boards of directors in a country. This ranged from 1 to 7 where 1 = not at all; 7 = to a great extent. All the variables were presented in their natural log form to control for heteroskedasticity and to help in the determination of their elasticities.

3.5.3.2 Investor protection (IP)

The independent variables included IP measured by three different metrics, namely protection of shareholders' MinInt, the LRI and the RegSE (sourced from the WEF). This followed Houque et al. (2012), Persakis and Iatridis (2016) and Persakis and Iatridis (2009, 2016). The IP measures are explained in Table 3.6 below. The average of these three metrics was also computed to represent the IP Index.

Table 3.6: Investor Protection (IP) Variables

Variable	Description	Data Source
Protection of minority shareholders' interests	Measure the strength of country's protection of interest of minority shareholders and ranges from 1 to, where 1 signifies not protected by law and 7 signifies protected by law and actively enforced for country i in year t .	World Economic Forum
Legal rights index	Measure the strength of the legal rights of investors and ranges from 1 to 10, where 1 signifies that the legal rights of investors are lowly protected and 10 signifies that the legal rights of investors are highly protected for country i in year t	World Economic Forum
Regulation of stock exchange.	Measure the strength of regulators to ensure the stability of the financial market and range from 1 to 7, where 1 signifies that regulators ability to ensure a stable financial market is weak and 7signifies strong regulators ability to ensure stability in the financial market for country i in year t	World Economic Forum

Source: Author's Characterisation

3.5.4 Empirical model estimation

The Arellano Bond GMM (1991) estimation technique was used. The study used a one-year lag of the IP variables in the dynamic models estimated. The assumption was that IP sometimes has a delayed effect on MgtQ. The effect of IP on the reliance on ProMgt and BodEff was estimated using equation (36) and (37). The study controlled for the effect of culture, economic and business

environment features, which are likely to affect MgtQ, such as economic growth, taxation, national culture, economic size and level of foreign ownership.

$$ProfMgt_{it} = \beta_1 ProfMgt_{it-1} + \beta_2 IP_{k,it-1} + \beta_3 NatCulture_{it} + \beta_4 EcoGrow_{it-1} + \beta_5 Tax_{it} + \beta_6 FOwner_{it} + \beta_7 EcoSize_{it-1} + \mu_i + v_{it} \quad (36)$$

$$BodEff_{it} = \beta_1 BodEff_{it-1} + \beta_2 IP_{k,it-1} + \beta_3 NatCulture_{it} + \beta_4 EcoGrow_{it-1} + \beta_5 Tax_{it} + \beta_6 FOwner_{it} + \beta_7 EcoSize_{it-1} + \mu_i + v_{it} \quad (37)$$

Wherein $IP_{k,it-1}$ is IP measured by four variables ($k = 1, 2, 3, 4$). IP_1 is the protection of MinInt; IP_2 is the LRI, and IP_3 is RegSE. Table 3.11 below shows the description of the variables and their expected signs. Table 3.7 below shows the description of the variables and their expected signs.

Table 3.7: Description of Variables and their Expected Signs on Equation (36) and (37)

Variable	Variable name	Measurement	Expected sign
ProMgt	Reliance on Professional Management	The extent a country rely on professional in senior management positions and ranges from 1 to 7 where 1= usually relatives or friends without regards to merit and qualification and 7= mostly professional managers chosen for merit and qualifications. This is sourced from WEF	
BodEff	Board Efficacy	The extent to which management is accountable to investors and board of directors in a country and ranges from 1 to 7 where 1= not at all; and 7= to a great extent. This is sourced from WEL	
MinInt	Protection of minority shareholders' interests	Measure the strength of country's protection of interest of minority shareholders and ranges from 1 to, where 1 signifies not protected by law and 7 signifies protected by law and actively enforced for country i in year t .	
LRI	Legal rights index	Measure the strength of the legal rights of investors and ranges from 1 to 10, where 1 signifies that the legal rights of investors are lowly protected and 10 signifies that the legal rights of investors are highly protected for country i in year t	Positive
RegSE	Regulation of stock exchange	Measure the strength of regulators to ensure the stability of the financial market and range from 1 to 7, where 1 signifies that regulators ability to ensure a stable financial market is weak and 7signifies strong regulators	

		ability to ensure stability in the financial market for country <i>i</i> in year <i>t</i>	
EcoGrow	Economic Growth rate	Gross Domestic Product in year <i>t</i> minus Gross Domestic Product in year <i>t</i> -1 and scaled Gross Domestic Product in year <i>t</i> - 1, for a country <i>i</i> in year <i>t</i> .	Positive
EcoSize	Economic Size	Measured as the natural logarithm of a country's total Gross Domestic Product (GDP)	
NatCulture	National Culture	National cultural dimension adopted from Hofstede's Values Survey Modules (VSM) measured by the level of individualism.	Negative
FOwner	Foreign Ownership	Measured as the extent foreign ownership of firms in a country and ranges from 1 to 7 where 1= not at all and 7 = to a great extent. This is sourced from WEL.	
Tax	Total Tax rate	This variable is a combination of a profit tax (% of profits), labour tax and contribution (% of the profit), and other taxes (% of the profit). This is sourced from WEL	Negative

Source: Author's Characterisation

3.6 Methodology on the interactive effect of IP and AudQ on FRQ

In this section, the methodology for evaluating the association between AudQ and FRQ in SSA is described; the relationship between IP regime and FRQ in SSA is examined and it is assessed how the interaction between IP and AudQ affected FRQ when MgtQ was controlled for. The methodology for these three objectives was combined because of the commonalities in the variables. The sample and data for the study and measurement of the variables are explained. It also provides the analytical framework and empirical model for testing the relationships.

3.6.1 Sample Selection

In this study, data from SSA were employed to fill the contextual gaps in existing studies. This study excluded the North African countries as they have significant cultural and financial management practices that differ from that of SSA.

The UNDPs put the number of countries in the SSA Region at 46, as detailed in Table 3.8 below:

Table 3.8: Countries in the Sub-Saharan African Region

Angola	Gabon	Nigeria	Benin	The Gambia
Rwanda	Botswana	Ghana	Chad	Burkina Faso
Guinea	Senegal	Burundi	Guinea-Bissau	Seychelles
Cameroon	Kenya	Sierra Leone	Cape Verde	Lesotho
South Africa	Central Africa Republic	Liberia	South Sudan	Sao Tome and Principe
Madagascar	Swaziland	Comoros	Malawi	Tanzania
DRC	Mali	Togo	Republic of Congo	Mauritania
Uganda	Cote d'Ivoire	Zambia	Equatorial Guinea	Mozambique
Zimbabwe	Eritrea	Namibia	Ethiopia	Niger
Mauritius				

Source: UNDP (2019)

However, there are fourteen (14) active stock markets in the sub-region according to African Market.com. Since the study uses financial statements of listed companies in the sub-region, only the fourteen (14) countries with the active stock market are selected for the study. Listed firms are sampled primarily because of data availability and reliability. Nevertheless, Bourse Regionale des Valeurs Mobilières (BRVM) were excluded from the study. This is because BRVM is a bloc stock market that serves the four West African Economic and Monetary Union (WAEMU) countries namely, Cote d'Ivoire, Burkina Faso Mali, Niger Senegal, and Togo. Since the stock market is not country-specific, firms listed on this market cannot be linked to any particular country factor. Additionally, these firms report in French and therefore making it unsuitable for the study.

Consistent with prior research (such as Kyereboah-Coleman, 2007; Francis & Wang, 2008; Baik et al., 2018) all financial institutions (such as bank, insurance, unit trusts and finance firms) were excluded from this study. Their exclusion is because financial institutions are supposed to meet different regulatory requirements that impact abnormal accruals and audit fees paid. The nature of the regulatory regime that financial institution is exposed to is different from that of non-financial institutions. Consequently, financial institutions may have a different environment for engaging in financial statement malpractices from other industries (kitiwong, 2014). Becker et al., (1998) and DeFond and Subramanyam (1998) thus confirm that DA computation of financial institutions remains a problem.

We use only companies with sufficiently available accounting data available to calculate the various indicators FRQ specified in the study for at least five consecutive years within the study

period from 2007 to 2017. Firms listed on BRVM were excluded because financial reports of these firms were not in the English language and not country-specific. Eventually, our study sample consisted of 472 firms across 13 SSA countries for the years 2007-2017. The unavailability of data for some years meant that the study relied on three thousand, five hundred and ninety-seven (3597) firm-year observations. Table 3.9 provides the lists of the countries selected, their stock market and their respective number of firms selected for the study

Table 3.9: Sample Countries, Stock Market and Number of firms

S/n	Country	Stock Market	Market	Number of sampled firms	Firm year Observation
1	Botswana	Botswana Stock Exchange	BSE	13	130
2	Ghana	Ghana Stock Exchange	GSE	21	210
3	Kenya	Nairobi Stock Exchange	NSE	33	330
4	Malawi	Malawi Stock Exchange	MSE	5	50
5	Mauritius	Stock Exchange of Mauritius	SEM	30	300
6	Namibia	Namibian Stock Exchange	NSX	18	180
7	Nigeria	Nigerian Stock Exchange	NGSE	56	560
8	Rwanda	Rwanda Stock Exchange	RSE	3	30
9	South Africa	Johannesburg Stock Exchange	JSE	215	2150
10	Tanzania	Dar es Salaam Stock Exchange	DSE	14	140
11	Uganda	Uganda Securities Exchange	USE	8	80
12	Zambia	Lusaka Stock Exchange	LUSE	14	140
13	Zimbabwe	Zimbabwe Stock Exchange	ZSE	42	420
Total				472	4720

Source: Author's Characterisation

3.6.2 Data

Firm-level data were taken from the published annual reports of publicly traded firms in SSA from the Bromberg database from 2007 to 2017. Country-level data were taken from the online edition of the Global Competitive Index of the WEF, the World Governance Indicators by Kaufmann et al. (2017) and Hofstede's VSMs. The variables for IP were taken from the Global Competitive Index of the WEF, the World Governance Indicators by Kaufmann et al. (2017). The IP variables

were sourced from the Global Competitive Index and included protection of shareholders' MinInt, the LRI and RegSE. Except for data on cultural dimension, which was sourced from Hofstede's VSMs, all other control variables were sourced from the Global Competitive Index.

3.6.3 Measurement of variables

3.6.3.1 Measure of AudQ

AudQ was measured using audit firm size. The selection of audit firm size (Big4 versus non-Big4) was based on the construct validity test of Rajgopal et al. (2015) of the AudQ proxies. Their study concluded BigN is the most appropriate proxy for the quality of auditors and audit quality as the proxy does not suffer from construct validity relative to other audit quality measure such as abnormal audit fees. Based on this argument and the nature of the present study, a Big4 international audit firm was used as a dummy proxy for AudQ.

3.6.3.2 Measurement of Investor Protection (IP)

Following Houque et al. (2012) and Persakis and Iatridis (2016), this study measured IP (independent variable) by three different metrics, namely the protection of shareholders' MinInt, the LRI, and RegSE (sourced from the WEF). The average of these three metrics was computed to represent the IP Index.

Table 3.10: Investor Protection (IP) Variables

Variable	Description	Data Source
Protection of minority shareholders' interests	Measure the strength of country's protection of interest of minority shareholders and ranges from 1 to, where 1 signifies not protected by law and 7 signifies protected by law and actively enforced for country i in year t.	World Economic Forum
Legal rights index	Measure the strength of the legal rights of investors and ranges from 1 to 10, where 1 signifies that the legal rights of investors are lowly protected and 10 signifies that the legal rights of investors are highly protected for country i in year t	World Economic Forum
Regulation of stock exchange.	Measure the strength of regulators to ensure the stability of the financial market and range from 1 to 7, where 1 signifies that regulators ability to ensure a stable financial market is weak and 7signifies strong regulators ability to ensure stability in the financial market for country i in year t	World Economic Forum

Source: Author's Characterisation

3.6.3.3 Measure of FRQ

Following Choi and Pae (2011) and Ferrero (2014), FRQ was measured by three dimensions which are DAs (a measure of earnings management), AC and AQ. DA is measured by estimating a variation of the Jones (1991) Model, as suggested by Kothari, Leone and Wasley (2005); the degree of AC was measured by an MTB ratio and AQ was measured using a variation of Dechow and Dichve (2002), as suggested by Ferrero (2014).

3.6.3.3.1 Measure of DA

DA was measured by estimating a variation of the Jones (1991) Model, as suggested by Kothari, Leone and Wasley (2005). In the model of Kothari et al. (2005), total accruals are given as:

$$\frac{TA_{it}}{A_{it-1}} = \beta_0 \frac{1}{A_{it-1}} + \beta_1 \frac{\Delta REV_{it}}{A_{it-1}} + \beta_2 \frac{PPE_{it}}{A_{it-1}} + \beta_3 \frac{ROA_{it}}{A_{it-1}} + \varepsilon_{it} \quad (38)$$

where, TA_{it} is the total accruals, ΔREV_{it} the change in revenues, PPE_{it} property, plant and equipment, A_{it-1} is lagged total assets for year $t - 1$, ROA_{it} is a return on assets for year $t - 1$. The change in revenue (ΔREV) explained the change in working capital or current accruals, and PPE explained noncurrent accruals, which are mostly depreciation. DA was measured by the residual of the estimated accrual models.

$$DA_{it} \equiv \frac{TA_{it}}{A_{it-1}} - \beta_0 \frac{1}{A_{it-1}} + \beta_1 \frac{\Delta REV_{it}}{A_{it-1}} + \beta_2 \frac{PPE_{it}}{A_{it-1}} + \beta_3 \frac{ROA_{it}}{A_{it-1}} \quad (39)$$

3.6.3.3.2 Measure of AC

AC was measured by estimating BTM using Beaver and Ryan (2005) to refine the model. This model was adopted due to data availability and its wide application in accounting literature. This model decomposes the BTM ratio into bias and lag components. The bias component has been used as a measure of AC in literature as prescribed by Beaver and Ryan. The study decomposes the BTM by regressing BTM on a lagged stock returns of the firm-year using the following fixed effect panel data regression equation (40).

$$BTM_{t,i} = \alpha_t + \alpha_i + \sum_{j=0}^6 \beta_j R_{t-j,i} + \varepsilon_{t,i} \quad (40)$$

where $BTM_{t,i}$ is the Book-to-Market ratio of firm i , at the end of year t ; α_t is year-to-year variation in the BTM commons to the sampled firms; α_i is bias component of BTM for firm i ; $R_{t-j,i}$ is ROE over each of the six preceding years and β_j is the regression coefficient on $R_{t-j,i}$.

In this model, the time intercept α_t is fixed for all firms in any particular period but may change from year to year. α_t can be interpreted as a variable capturing the time effect of market-wide BTM movement. The fixed effect coefficient α_i captures the firm-specific persistent bias component of BTM i and is fixed for each firm. β_j are the regression coefficient of the lag component of the BTM ratio, which are not regarded as an AC measure. The bias component of BTM, α_i is a more accurate measure of the firm's degree of AC than the raw BTM. A lower BTM is an indication of high AC and for the matter high FRQ and vice versa.

3.6.3.3.3 Measure of AQ

AQ was measured using a variation of Dechow and Dichve (2002), as suggested by Ferrero (2014), as follows:

$$\Delta WC_{it} = \beta_0 + \beta_1 OCF_{it-1} + \beta_2 OCF_{it} + \beta_3 OCF_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \beta_6 DOCF_{it} + \beta_7 OCF_{it} * DOCF_{it} + \varepsilon_{it} \quad (41)$$

where ΔWC_{it} is the change in working capital accruals from year $t-1$ to t and it is computed as the change in Accounts Receivable (ΔAR) + change in Inventory (ΔInv) – change in Accounts Payable (ΔAP) – change in Tax Payable (ΔTP) + change in other assets ($\Delta OAssets$), OCF_{it} is the operating cash flow for time t and company i ; ΔREV_{it} is the change in revenues; $DOCF_{it}$ is an indicator variable for negative cash flows. It takes the value 1 if there are negative OCF and 0 otherwise. All variables (except $DOCF$) are scaled by the total number of assets. The absolute value of the residuals from this model was used as a proxy for AQ; the lower the degree of this proxy, the higher the degree of AQ.

$$AQ_{it} = \Delta WC_{it} - \beta_0 + \beta_1 OCF_{it-1} + \beta_2 OCF_{it} + \beta_3 OCF_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \beta_6 DOCF_{it} + \beta_7 OCF_{it} * DOCF_{it} \quad (42)$$

3.6.3.3.4 Aggregate measure of FRQ

The aggregate measure of FRQ is the sum of the three dummy variables detailed above (**DEQ**, **BTM** and **DAQ**), as prescribed by Ferrero (2014). AFRQ takes values between 0 (absence of quality of information) and 3 (strong level of quality).

DEQ takes the value of 1 if a company has a level of DA under the average for the corresponding sector, year and country, and 0 otherwise. **BTM** takes the value of 1 if a company has a level of BTM above the average for the corresponding sector, year and country, and 0 otherwise. Finally, **DAQ** takes the value of 1 if a company has a level of AQ under the average for the corresponding sector, year and country, and 0 otherwise. AFRQ is calculated as the sum of the DEQ, BTM and DAQ dummies:

$$AFRQ = DEQ + BTM + DAQ \quad (43)$$

3.6.4 Control variables

The control variables for this objective included country-level and firm-level variables. The country-level variables were culture, economic and business environment features, which have been established in the literature as the important mediating factors (Nabar & Boonlert-U-Thai, 2007). These variables included economic growth, taxation, national culture, economic size and level of foreign ownership. The firm-level variables that were controlled for were firm size, firm growth, leverage and cash flow volatility, which have been shown by research to affect FRQ (Houque et al., 2012; Persakis & Iatridis, 2016). This study controlled for the effect of reliance on ProMgt and BodEff, which were two-dimension measures of MgtQ used for this study.

3.6.5 Analytical Framework and Empirical Model

Three equations were developed to test the third, fourth and fifth objectives of this study. Equation (44) assessed the relationship between FRQ and AudQ. Prior studies regress FRQ on an indicator variable for AudQ (for example, Big4 vs. non-Big4 audit firms) in addition to other control variables, for example, Becker et al. (1998) and Soliman and Ragab (2014) in a static regression model. OLS multiple regression is the main statistical technique by which extant literature tests the effect AudQ has on FRQ. The coefficient on AudQ is the incremental effect on the level of

FRQ from choosing a higher quality auditor. This study extends prior research by using a dynamic panel regression model, allowing the effects of a lagged dependent variable in a GMM framework. Accordingly, the following dynamic panel model equation (44) was formulated to test the relationship between AudQ and FRQ. In this model, FRQ (dependent variable) was measured by four firm-level dimensions, which were DAs (a measure of earnings management), AC, AQ and aggregate IFRQ. The regression equation was, therefore, run four times for each dimension of FRQ and aggregate FRQ proxy. The effect of economic growth, taxation, national culture, economic size, level of foreign ownership is said to have an influence on FRQ (ICAEW, 2012; Nabar & Boonlert-U-Thai, 2007) were controlled for. Following Houque et al. (2012) and Persakis and Iatridis (2016), firm-level variable firm size, firm growth, leverage and profitability, which have been shown by research to affect FRQ, were also controlled. The models used similar variables as Persakis and Iatridis (2016). This study also controlled for the effect of reliance on ProMgt, which has been ignored by extant studies.

Equation (45) evaluated the relationship between the IP regime of a country and the FRQ of firms. To examine the relationship between IP and FRQ, the GMM model in equation (45) was estimated. Regression equation (45) was run four times for three dimensions of FRQ (earnings management, AC and AQ) and the aggregate measure of FRQ.

In equation (46), the interactive effect of AudQ and IP on FRQ was assessed. This study extends prior research by using a dynamic panel regression model, allowing the effects of a lagged dependent variable in the GMM framework. Accordingly, the following dynamic panel model equation was formulated to test how the interaction of IP and AudQ relate with FRQ. In this model, FRQ (dependent variable) was measured by four dimensions, namely DAs (a measure of earnings management), AC, AQ and the aggregate financial reporting index. The regression equation was, run four times for each dimension of FRQ. The IP Index was measured by the average of three different metrics, namely protection of shareholders' MinInt, the LRI and RegSE (sourced from the WEF).

$$\begin{aligned}
 FRQ_{k,it} = & \beta_1 FRQ_{k,it-1} + \beta_2 AudQ_{it} + \beta_3 ProfMgt_{it} + \beta_4 Ethics + \beta_5 FirmSize_{it} + \beta_6 ROA_{it} \\
 & + \beta_7 FirmGrow_{it} + \beta_8 FOwner_{it} + \beta_9 LEV_{it} + \beta_{10} Tax_{it-1} + \beta_{11} EcoGrow_{it} \\
 & + \beta_{12} EcoSize_{it} + \mu_i + v_{it}
 \end{aligned} \tag{44}$$

$$\begin{aligned}
FRQ_{k,it} = & \beta_1 FRQ_{k,it-1} + \beta_2 IP_{k,it-1} + \beta_3 EcoGrow_{it-1} + \beta_4 EconSize_{it} + \beta_5 Tax_{it} + \beta_6 ProfMgt_{it} \\
& + \beta_7 FOwner_{it} + \beta_8 FirmSize_{it} + \beta_9 ROA_{it} + \beta_{10} CFO_{it} + \beta_{11} LEV_{it} + \beta_{12} LAGLoss_{it} \\
& + \beta_{13} FirmGrow_{it} + \mu_i + v_{it}
\end{aligned} \tag{45}$$

$$\begin{aligned}
FRQ_{k,it} = & \beta_1 AFRQ_{k,it-1} + \beta_2 IP_{it-1} + \beta_3 AudQ_{it} + \beta_4 AudQ_{it} * InvP_{it-1} + \beta_5 NatCulture_i \\
& + \beta_6 thics_{it} + \beta_7 EcoGrow_{it-1} + \beta_8 EcoSize_{it} + \beta_9 Tax_{it} + \beta_{10} ProfMgt_{it} \\
& + \beta_{11} BodEff_{it} + \beta_{12} FOwner_{it} + \beta_{13} FirmSize_{it} + \beta_{14} ROA + \beta_{15} CFO_{it} + \beta_{16} LEV_{it} \\
& + \beta_{17} LAGLoss_{it} + \beta_{18} FirmGrow_{it} + y_t + \lambda_{it}
\end{aligned} \tag{46}$$

Wherein FRQ_{kit} is the FRQ measured by four different approaches ($k = 1, 2, 3, 4$): FRQ_{1it} is AC measured by Beaver and Ryan (2005) refined Book-to-Market value ratio (BTM); FRQ_{2it} is AQ measured by Dechow and Dichve (2002) by the model of Kothari et al. (2005); FRQ_{3it} is DA, which is a measure of earnings management measured by the model of Kothari et al. (2005) and FRQ_{4it} is the aggregate measure of FRQ (AFRQ), $IP_{k,it-1}$ is IP measured by four variables ($k = 1, 2, 3, 4$). IP_1 is the protection of MinInt; IP_2 is the LRI, and IP_3 is RegSE; IP_4 is the IP Index. Table 3.11 below shows the description of the variables and their expected signs.

Table 3.11: Description of the variables and their expected signs in equations (44), (45) and (46)

Variable	Variable name	Measurement	Expected sign
AFRQ	Aggregate FRQ	Ferrero (2014) model	
DA	Discretionary Accruals (Earnings Management)	Kothari et al. (2005) model	
AC	Accounting conservatism	Beaver and Ryan (2005) refined Book-to-Market value (BTM ratio)	
AQ	Accrual Quality	Accrual Quality is measured using a variation of Dechow and Dichve (2002)	
MinInt	Protection of minority shareholders' interests	Measure how strong is the protection of interests of minority shareholders and ranges from 1 to 7, where 1 signifies not protected by law and 7 signifies protected by laws and actively enforced for country <i>i</i> in year <i>t</i> . This is sourced from WEF	Positive
LRI	Legal Right Index	Measure how strong is the legal rights of investors and ranges from 1 to 10, where 1 signifies that the legal right of investor is lowly protected and 10 signifies that the legal rights of investors are highly protected for country <i>i</i> in year <i>t</i> . This is sourced from WEF	
RegSE	Regulation of stock exchange	Measure the strength of regulators in ensuring the stability of the financial market and range from 1 to 7, where 1 signifies that regulators ability to ensure a stable financial market is weak and 7 signifies strong regulators ability to ensure stability in the financial market for the country <i>i</i> in year <i>t</i> . This is sourced from WEF	
IP	Investor Protection	Average of the MinInt, LRI and RegSE	
AudQ	Auditor Quality	Dummy variable which assigned a value of 1 the use of Big4 otherwise, 0	
Ethics	Ethical behaviour of firms	Measures the level of corporate ethics of firms in interaction with public officials, politicians, and other firms and ranges from 1 to 7 where 1 signifies extremely poor - among the worst in the world; and 7= excellent – among the best in the world for a country <i>i</i> in year <i>t</i> . This is sourced from WEF	

ProMgt	Reliance on Professional Management	The extent a country rely on professional in senior management positions and ranges from 1 to 7 where 1 = usually relatives or friends without regard to merit and 7 = mostly professional managers are chosen for merit and qualification. This is sourced from WEF	Positive
BodEff	Board Efficacy	The extent to which management is accountable to investors and board of directors in a country and ranges from 1 to 7 where 1 = not at all; and 7 = to a great extent. This is sourced from WEL	
EcoGrow	Economic Growth rate	Gross Domestic Product in year t minus Gross Domestic Product in year $t - 1$, and scaled by Gross Domestic Product in year $t - 1$, for country i in year t .	Positive
EcoSize	Economic Size	Measured as the natural logarithm of a country's total Gross Domestic Product (GDP)	
NatCulture	National Culture	National cultural dimension adopted from Hofstede's Values Survey Modules (VSM) measured by the level of individualism.	Negative
FOwner		Measured as the extent foreign ownership of firms in a country and ranges from 1 to 7 where 1 = not at all and 7 = to a great extent. This is sourced from WEL	
Tax	Total Tax rate	This variable is a combination of profit tax (% of profits), labour tax and contribution (% of profits) and other taxes (% of the profit) This is sourced from WEL	Negative
FirmSize	Corporate Size	Measured as the natural logarithm of total assets	Positive
ROA	Profitability	Return on assets is measured as net profit to a lagged total asset for firm i in year t	Positive
FirmGrow	Firm growth rate	The sales growth rate is defined as the sales in year t minus sales in $t - 1$, and scaled by sales in year $t - 1$, for firm i in year t .	Positive
CFO	cash flow from operation volatility	measured as the standard deviation of cash flow from operations scaled by total assets for firm i in year t .	Negative
LEV	Financial leverage	Total liabilities divided by total assets for firm i in year t .	Negative
LAGLoss	loss before extraordinary items	Dummy variable = 1 if firm i reports negative income before extraordinary items in year $t - 1$	Negative

Source: Author's Characterisation

3.7 Pre-estimation techniques

The literature proposes that before a regression estimation is performed, various diagnostics must be undertaken. These pre-diagnostic tests examine the reliability of the data and models to guarantee the provision of non-spurious and reliable results. Based on the requirement, the study conducted some pre-estimation tests, which included a normality test, multicollinearity test and a unit root test.

3.7.1 Normality test

Multiple regression takes the position of a normal distribution among the variables used in a model. The violation of this assumption may result in an estimation bias. Normality tests examine the presence of outliers in the dataset. According to Jaba et al. (2017), non-linear data can provide unreliable data, which may not lend itself to robust regression analysis and results. Descriptive statistics methods were employed in this study, such as mean value, standard deviation, minimum value and value to test for possible violation of the normality assumption.

3.7.2 Multicollinearity test

In a regression estimation, high collinearity among the independent variables may provide spurious results. As a result, Gujarati and Porter (2010) suggest that researchers conduct a multicollinearity test before estimating the relationship among the variables. Therefore, this study conducted a multicollinearity test to establish the collinearity among the independent variables. This was achieved through a Pearson correlation analysis, which is the correlation results of the relationship that exists among the various explanatory variables. As a guide, a correlation of 0.7 and above between independent variables indicates the presence of multicollinearity (Marcoulides & RayKov, 2019). Where there is a high correlation, a variance inflation factor (VIF) was also conducted. To be accepted, the results of the VIF should be less than the threshold of 10 which is suggested in the literature (Salmeron et al., 2018).

3.7.3 Test of stationarity: Unit root test

Researchers admit that most panel data suffer from stationarity, which can affect regression results. Given this, it is advised that a unit root test on the variables must precede the regression estimation. This helps to detect whether any of the variables are non-stationary, because regressing non-

stationary series on each may lead to the production of invalid results (Ullah et al., 2018). Consequently, the study conducted unit root tests using four different unit root testing techniques. The tests were conducted under the null hypothesis that there is a presence of stationarity at both levels and the first difference. These unit root testing techniques included Augmented Dickey-Fuller (ADF), Phillip Peron (PP), Im-Pesaran-Shin (IPS) and Breitung. For a Sys-GMM method, it is expected that all the variables must be either stationary at level (I(0) or at the first difference (I(1). The different techniques were necessary to validate the results of the various techniques. In addition, the stationarity of the results will show whether a Sys-GMM approach is suitable for the estimation of the parameters in the model.

3.8 Post-estimation techniques

Several post-estimation robustness checks were conducted in the study. The most popular robustness test results comprise second-order correlation (AR2) and Hansen's J-test. The null hypothesis of the second-order correlation (AR2) predicts the presence of autocorrelation in the models. A significant p -value of the AR2 would confirm the hypothesis, which will suggest spurious results. Therefore, the p -values of AR2 of all the models were expected to be insignificant ($p > 0.05$). When the AR2 results are insignificant in a model, the null hypothesis is rejected. This will imply that the models do not suffer from the problem of autocorrelation. This makes the GMM results robust and reliable.

In addition, Hansen's J-test was also conducted to test for the robustness of the models used for the estimation. The Hansen's J-test is a statistical test that is employed to examine the over-identification restriction of a statistical model (Hansen, 1982; Bond et al., 2001). The null hypothesis of Hansen's J-test is that the group of instruments in the model are exogenous. This test is based on the assumption that the parameters of a model are known through theoretical restrictions and tests the legitimacy of the over-identification restrictions. To be accepted, Hansen's J-test results are supposed to be insignificant ($p > 0.05$) in a model. This would suggest that the null hypothesis is rejected, indicating that the over-identification restrictions on a model are invalid. This result implies that the number of instruments used for an estimation does not have any negative effect on the estimators.

3.9 Chapter Summary

In this chapter, the general research design and methodology used for this study and the specific research design employed for the objectives were discussed. All three specific methodologies were developed for the entire study. A methodology was developed for the third to fifth objectives due to the similarity in variables and the adequacy of an empirical model to address the research questions.

The research paradigm was also explained. This study was conducted within the framework of a positivist paradigm, indicating that this study assumed the existence of objective realities, hence a hypothesis was employed to test these assumptions. In addition, the study was based on a structured methodology, which uses secondary data to test established assumptions.

The estimation techniques employed for the various objectives of the study were explained, in which the employment of a dynamic estimation technique called the Sys-GMM was indicated to estimate the parameters of the model. The data source and various variables used for estimation in this chapter were defined, as well as the pre-and post-estimation techniques employed for the study. The subsequent chapter will present the results of the study, especially the results of the objectives of the study, which will be further analysed and discussed.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4. Introduction

The study investigated how the interplay of IP and AudQ related to FRQ in SSA. The study further examined the influence of MgtQ on the FRQ of firms in SSA, as well as the association between IP and MgtQ in SSA. The previous chapter presented the methodology of this study, where the various data sources and the models used to achieve the various objectives were discussed. This chapter presents the results of the study along with further analyses and discussions of the results. The rest of the chapter is organised into five sections, with sections 1 to 4 presenting, analysing and discussing the results that relate to the various objectives. Section 5 provides the summary and conclusion of the chapter.

4.1 Management Quality (MgtQ) and FRQ in SSA

The results of the relationship between MgtQ and FRQ of countries in SSA are presented in this section. MgtQ was measured by two metrics, which are reliance on ProMgt and BodEff. The reliance on the ProMgt variable was obtained from the database of the WEF, which determined reliance on ProMgt by the extent to which a country employs the services of professionals in senior management positions. Moreover, the BodEff variable was sourced from the database of the WEF, which was also measured by the extent to which the management of firms in a country are accountable to investors and board of directors. The FRQ is a country-specific variable, which was measured based on the model of Tang et al. (2016), which used six dimensions of accounting and

auditing quality to determine the indicators of the national FRQ index, namely LAR, PDAR, AR, QAOR, NBAR and AFR.

4.1.1 Descriptive statistics

The results presented in Table 4.1 below show the descriptive statistics of the variables used for estimating and analysing the association between MgtQ and FRQ of SSA countries. The descriptive statistics of the variables used for the estimation is presented in Table 4.1.

Table 4.1: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
FRQI	3,597	4.535	2.722	1.033	9.216
ProMgt	3,578	5.005	0.54497	3.71	5.83
BodEff	3,578	5.213	0.63001	4.00	6.27
EcoGrow	3,597	3.770	4.2339	-1.766895	9.675
EcoSize	3,597	2.24e+11	1.71e+11	4.42e+09	5.68e+11
Tax	1,635	32.762	5.381	14.50	49.60
NatCulture	2,835	48.019	19.253	15.00	65.00
FOwner	3,578	4.928	0.4693	3.23	6.25
FirmSize	3,341	35007.64	308311.9	105.579	1.66e+07
FirmGrow	3273	39.113	12.037	-10.000	47.3895
ROA	3,302	6.3696	24.3235	-56.974	460.432
LEV	3,270	38.7223	47.5396	0.779	267.735

Source: Researchers' Estimation

Notes: Table 4.1 above shows the descriptive statistics of firm-specific and national level variables used in the study. The variables included the dependent variable of the FRQI (National FRQ index). The independent variables are ProMgt, BodEff, EcoGrowth, EcoSize (economic size, which is proxied by GDP), Tax (Total Tax Rate), NatCulture (National Culture which is proxied by the degree of individualism in a country), FOwner (Foreign Ownership of firms in a country), Firm Size (which is proxied by total assets), Firm growth (which is proxied by Sales growth rate), ROA (return on assets, representing profitability) and LEV (financial leverage).

The results showed that the FRQI had a mean of 4.535, ranging from a minimum of 1.033 to a maximum of 9.216. This demonstrated that the countries had a moderately high quality of financial reporting. Other country-specific variables that may influence the FRQ of the SSA countries were also considered. One such variable was the total tax rate (Tax) of the countries, which had a mean score of 32.762, suggesting that on average, the firms in SSA paid as much as 32.762% of their profits and others as tax. The tax rate ranged from 14.50 to 49.60 per cent and with a standard deviation of 5.381. This result showed that there was a high degree of dispersion among the tax rates of SSA countries. In addition, the ProMgt had a mean of 5.005 from a range of 3.71 to 5.83. This result indicated that countries in SSA relied mostly on professional managers chosen for merit and qualification in senior management positions of corporations than relatives or friends without regards to qualification. The low standard deviation (SD) of 0.54497 suggested a low degree of dispersion among the countries. In addition, the mean value for the BodEff variable was 5.213, which ranged from a minimum of 4.00 to a maximum of 6.27. Given that the highest possible score for the BodEff is 7.00, it suggested that the firms in SSA have a highly efficient board of directors with high management accountability.

In the other data, the economic size (EcoSize) of the countries also obtained a mean score of \$22.4 billion, with a standard deviation of \$17.1 billion. This suggested that there was a wide disparity in the size of the economies of countries in SSA. The economic growth rate (EcoGrowth) of the countries also had a mean score of 3.77, suggesting that the average growth rate of countries in SSA was 3.77% from 2007 to 2017. This suggested that the countries seemed to enjoy economic growth against the backdrop of the financial crises in 2008 and the immediate years following it. Nonetheless, the data suggested that some countries also suffered a recession, demonstrated by the minimum of -1,767% growth rate. Firm ownership (FOwner) also had a mean of 4.928, which ranges from a minimum score of 3.23 to a maximum score of 6.25. Given that this variable ranges from a scale of 1.00 to 7.00, this result showed that the majority of the firms in SSA were owned by foreign owners.

Concerning the culture variable, the mean score was 48.019, with a minimum score of 15.00 and a maximum score of 65.00. This result suggested that there is a low level of individualism among countries in SSA. In addition, the SD of the culture variable was 19.253, which showed a small level of cultural variability among countries in SSA. Apart from the country-specific variables,

other features specific to the firms were also included in the estimation. These firm-specific features included ROA, which obtained a mean of 6,37%. This showed that the majority of the firms in SSA are profitable, though a few of them recorded losses, as demonstrated by the minimum ROA of -56,97%. The financial leverage (LEV) and firm size (FirmSize) also recorded mean values of 38,72% and \$35 006 640 respectively. The financial leverage indicated that, on average, 38,72% of the assets of the firms are financed through debt. Similarly, the FirmSize result showed that, on average, the firms have an asset value of \$35 006 640. Moreover, the results showed that firm growth (FirmGrow) had a mean of 39.11, suggesting that the firms recorded an average sales growth of 39,11% from 2007 to 2017.

4.1.2 Multicollinearity test

Table 4.2 below presents the Pearson correlation results among the independent variables. The results demonstrated a weak correlation among the variables. The results indicated that the correlation among the variables is less than 0.65, except for the relationship between EcoSize and ProMgt ($r=-0.693$) and EcoGrowth and Culture, which recorded a correlation coefficient of -0.661. Other correlations among the variables that recorded a relatively high coefficient were the correlation between BodEff and FOwner ($r=0.646$) and TAX and FOwner ($r=-0.612$). These relationships are relatively strong.

Some correlations contradict the expectations of this study. For instance, the correlation between EconSize and EconGrowth was -0.299, which ordinarily is supposed to be positive. Moreover, there was a negative relationship between tax rate and economic growth and economic size, suggesting that firms in countries with a high economic growth rate and economic size pay less tax. However, the majority of the relationships among the variables were not surprising. Furthermore, the highest correlation coefficients were between EcoSize and Culture ($r=-0.661$); TAX and BodEff ($r=-0.440$) and EcoGrowth and FOwner (0.439). However, these correlation coefficients were significantly lower than the benchmark of 0.765, which is embraced by many researchers. Apart from these, the other correlation coefficients were less than 0.6. Based on these results, it can be concluded that the variables do not suffer from multicollinearity, therefore, they may not produce spurious results.

Table 4.2: Correlation Matrix

	BodEff	EcoSize	EcoGrow	FirmGrow	LEV	FOwner	FirmSize	Tax	ROA	NatCulture	ProMgt
BodEff	1.000										
EcoSize	0.416***	1.000									
EcoGrow	-0.601***	-0.381***	1.000								
FirmGrow	0.089***	-0.011	-0.051*	1.000							
LEV	-0.209***	-0.095***	0.059***	-0.029	1.000						
FOwner	0.648***	0.479***	-0.299***	0.131***	-0.121***	1.000					
FirmSize	-0.182***	0.071***	0.009	0.003	0.147***	-0.306***	1.000				
Tax	-0.436***	-0.308***	0.389***	-0.089***	0.029	-0.623***	0.239***	1.000			
ROA	0.061***	0.005	-0.003	0.336***	-0.320***	0.086***	0.120***	-0.003	1.000		
NatCultur	0.927***	0.547***	-0.478***	0.130***	-0.234***	0.705***	-0.120***	-0.424***	0.110***	1.000	
ProMgt	0.936***	0.541***	-0.523***	0.123***	-0.212***	0.752***	-0.208***	-0.405***	0.078***	0.944***	1.000

Source: Researchers' Estimation

Notes: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level.

4.1.3 Unit root test

Researchers acknowledge that most panel data suffer from a unit root which can affect regression results (Jaba et al., 2017). Given this, researchers advise that a unit root test on the variables must precede the regression estimation. This helps to detect whether any of the variables are non-stationary because regressing non-stationary series on each may lead to the production of invalid results. Based on this, the study conducted unit root tests using four different unit root testing techniques. These unit root testing techniques included Augmented Dickey-Fuller (ADF), Phillip Peron (PP), Im-Pesaran-Shin (IPS) and Breitung. The unit root tests results of the variables used for the estimation are presented in Table 4.3 below.

Table 4.3: Unit Root Test Results

Variable	ADF		PP		IPS		Breitung	
	t-stats	Level	t-stats	Level	t-stats	Level	t-stats	Level
FRQI	384.74	I(0)	35.85	I(0)	84.49	I(1)	137.07	I(0)
ProMgt	710.13	I(0)	409.91	I(0)	1.154	I(0)	20.34	I(0)
BodEff	696.96	I(0)	283.09	I(0)	84.39	I(0)	6.19	I(0)
EcoGrow	392.04	I(0)	208.93	I(0)	93.29	I(1)	327.06	I(0)
EcoSize	528.753	I(0)	804.03	I(0)	0.4538	I(0)	2.039	I(0)
Tax	549.40	I(0)	590.76	I(0)	29.04	I(1)	17.46	I(1)
NatCulture	82.36	I(0)	383.32	I(1)	273.863	I(0)	393.59	I(1)
FOwner	474.11	I(0)	613.66	I(1)	1.697	I(0)	203.94	I(1)
FirmSize	526.972	I(0)	213.69	I(1)	10.544	I(0)	16.926	I(1)
FirmGrow	482.38	I(0)	74.48	I(1)	382.35	I(0)	-3.9E-11	I(0)
ROA	483.96	I(0)	293.83	I(0)	83.47	I(0)	324.22	I(1)
CFO	23.969	I(0)	84.07	I(0)	125.83	I(0)	4.748	I(0)
LEV	490.200	I(0)	327.49	I(1)	392.27	I(1)	5.638	I(0)

Source: Researchers' Estimation

Notes: In panel units root tests, probabilities are computed assuming asymptotic normality. (a) tests the hypothesis of the presence of the individual unit root process, and (b) tests the hypothesis of no unit root in the common unit root process.

The test is premised on the null hypothesis that there is present at both levels and first difference. The results presented in Table 4.3 above demonstrate that all the variables were stationary at levels,

I(0)s or stationary and the first difference, I(1)s. Concerning the ADF techniques, all the variables were I(0)s concerning the PP, IPS and Breitung results, all the variables were either I(0)s or I(1)s. The different techniques were necessary to validate the results of the various techniques. Based on the consistency of the results of the various methods, the study rejected the null hypothesis of the presence of unit root at both levels and the first difference. This indicated that none of the variables was stationary at the second difference. This suggested that the regression analysis could incorporate both I(0) and I(1) variables, suggesting that the series was produced at the stationary process. In addition, the stationarity of the results indicated that a Sys-GMM approach was suitable for the estimation of the parameters in the model.

4.1.4 Relationship between MgtQ and FRQ

The regression results of the relationship between MgtQ and the FRQ of countries in SSA are presented in this section. Management quality was measured by two variables, comprising reliance on ProMgt and BodEff, which were obtained from the database of the WEF. The FRQ was also measured based on six accounting and auditing quality dimensions of the model of Tang et al. (2016). The main aim was to investigate whether the quality of management in a country influenced the FRQ of that particular country.

Table 4.4: Regression Results of MgtQ and FRQ

	Coefficient	Standard Error
Constant	-11.137***	1.1249
FRQ _{it-t}	0.3792***	0.0378
ProMgt _{it}	3.635***	0.3205
BodEff _{it}	1.429***	0.1671
EcoGrow _{it}	0.2323***	0.0172
EcoSize _{it}	-3.58e-12***	4.75e-13
Tax _{it}	-0.0609***	0.0112
NatCulture _{it}	0.0603***	0.0108
FOwner _{it}	-1.7142***	0.3094
FirmSize _{it}	-5.83e-07	4.55e-07
FirmGrow _{it}	-0.0004	0.0005
ROA _{it}	0.0049	0.0042

LEV _{it}	0.0166*	0.0082
Post-Estimation Test		
AR2		0.582
Hansen J Stats		0.479
Number of Observations		1247
Number of Instruments		27
Cross-sections		310

Source: Researchers' Estimation

Note: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level.

Notes: Table 4.4 above shows the regression results of the relationship between MgtQ and the FRQ of countries in SSA. Both firm-specific and national level variables were used in the study. These variables included the dependent variable of FRQI and independent variables of ProMgt, BodEff, EcoGrow, EcoSize (economic size, which is proxied by GDP), tax, national culture, foreign ownership, firm size (which is proxied by total assets), firm growth (which is proxied by sales growth rate), ROA (return on assets, representing profitability) and LEV (financial leverage).

From Table 4.4 above, confirming the study's expectation, the results showed that the lagged $FRQI_{it-1}$ had a positive relationship with the current year's FRQI. Besides, the result was significant at 1% This result suggested that the quality of financial reporting of previous years significantly influenced the current year's FRQ of the countries in SSA. This is consistent with the view of Baik, et al., 2020) that a firm or a country that has a record of quality financial reporting will continue to have quality financial reporting shortly. This is because the countries or the firms would build upon their track records and experience to improve on their financial reporting practices in subsequent years.

Concerning one of the main independent variables, which is the reliance on ProMgt, the study hypothesised that it would have a positive relationship with FRQI. Unsurprisingly, the result is consistent with the expectation by demonstrating a positive relationship between ProMgt and FRQI. The result further shows that the level of relationship between these variables is significant at 1%, suggesting that reliance on ProMgt significantly improves FRQ. This result implies that FRQ is high for countries that mostly rely on professionals for senior management position than countries that rely on relative or friends appointed without regards to merit. This result is plausible because financial reporting is a product of systems and controls put in place by management. Therefore, if a firm has professional and experienced management, it would be able to develop a good internal control system and procedures to guide its financial reporting activities. Professional

managers are also guided by ethical codes and guidelines which regulates their professional behaviours. This will eventually translate into quality financial reporting. In addition, ProMgt may have the experience of supervising financial reporting activities of different firms for many years, hence they can draw on their experience to improve the financial reporting of firms. This is consistent with the views of Demerijian et al. (2012); Baik et al. (2020); Baik et al. (2018); García-Meca and García-Sánchez (2018) and Rashid (2020) who maintain that countries and firms with ProMgt will have improved financial reporting regime because of the experience they bring to the firms.

Another a priori of the study was that BodEff would be positively related to the quality of financial reporting (FRQI) of firms in SSA. Affirming the a priori of the study, the result shows a positive and significant ($p < 0.01$) relationship between BodEff and FRQI. This result implies that an increase in BodEff would increase the quality of financial reporting. The study interprets this result to mean that firms or countries that have an efficient board of directors with high management accountability would have high-quality financial reporting than countries with a lower level of BodEff and management accountability. This interpretation is reasonable because the board of directors supervise the management of firms. Therefore, it is the responsibility of the board of directors to appoint qualified and experienced management. Therefore, if the board of directors are efficient, they will also hire efficient management who would prepare quality financial reports. In addition, the board of directors supervises management to ensure that the policies and system are followed. The board of directors approves the financial reports prepared by management. It, therefore, makes sense that if the corporate board is efficient and accountable to investors they will be able to effectively supervise management to ensure that the financial reports they prepare are accurate, relevant and free from errors. This result affirms the findings of studies such as Rani et al. (2013) and Wang et al. (2017). These studies demonstrated that BodEff has a positive and significant impact on FRQ.

The overarching point is that since FRQ bothers on discretionary accounting policies and the professionalism of managers will influence the quality of financial report they produce. Conceptually, higher MgtQ may have a better understanding of their firm's business, will be more guided by professional ethics and use this knowledge and professional etiquette to inform investors more effectively. Impliedly higher MgtQ who are more guided by professional ethics and are

accountable to investors are less likely to manipulate financial report to deceive investors. Confirming the hypothesis, the engagement of professionals in a senior management position of firms other than family and friends without regard to merit and qualification is more likely to lead to better quality financial reports. This result is also consistent with the findings of earlier studies such as those of Aier et al. (2005), Bamber et al. (2010), Koh (2011), Baik et al. (2018), Huang et al. (2012), Demerijian et al. (2013), Choi et al. (2015), Baik et al. (2020), Wang et al. (2017) and García-Meca and García-Sánchez (2017) and Rashid (2020) who showed a positive relationship between ProMgt and the quality of financial reporting of firms. This result confirms that FRQ is more likely to be high in countries that rely on professionals in senior management positions than countries that rely on relatives or friends without regard to merit. In addition, in countries where management is greatly accountable to investors and the boards of directors, FRQ is more likely to enhance. This study, however, contradicts the finding of Li et al. (2016); Zhang (2019) and Priscilla and Siregar (2020) that suggested that more competent managers can impair firms' information environment through non-transparent financial disclosures with others suggesting that managerial quality may be irrelevant in FRQ of firms.

The study further examined whether other country-specific features have impacts on the FRQ of those countries. The first of such country-specific features is the economic growth (EcoGrow) of the countries. The study predicted that economic growth would have a positive impact on FRQ. The result confirms the prediction, by showing a positive and significant ($p < 0.01$) relationship between EcoGrow and FRQI. This result implies that a country that experiences high economic growth would have high-quality financial reporting among its firms. This is possible in two ways. First, a country with high growth may attract more foreign investments. These foreign investors may introduce efficient systems and technologies to improve the financial reporting practices of firms. Secondly, countries with high growth may want to consolidate their growth by putting in place policies, systems and regulations to ensure that firms in that country remain productive. This would improve the corporate governance practices of firms and consequently, the financial reporting practices of the firms will improve. This result is consistent with the findings of Ding et al. (2016) and Zandi et al. (2019) who documented a positive relationship between economic growth and FRQ. This study, however, contradicts the findings of Cohen and Zarowin (2007), which provides evidence that there a negative relationship between economic growth and FRQ.

The result further shows a negative relationship between the size of an economy (EcoSize) and FRQ (FRQI). In addition, the level of relationship between EcoSize and FRQI is significant at 1%. This result implies that a country with a large GDP mostly likely will have a low quality of financial reporting and vice versa. Although, this result contradicts the expectations, however, it is possible in two ways. The first possible reason for a negative relationship between EcoSize and FRQI is that large economies may have many and fragmented firms operating in that economy. This may make it difficult for the regulatory bodies to effectively supervise these fragmented firms. Due to a lack of effective supervision by the regulatory bodies, some of these firms may engage in illicit accounting practices which may affect the quality of financial reports of the firms in that country. Again, out of complacency, larger economies may not be aggressive in developing new guidelines and systems to regulate their reporting practices. Because of this contentment, the gains attained over time may erode, which would lead to a poor financial reporting regime. This finding conflicts with findings by As'ad (2019) and Filip and Raffournier (2014) which shows a positive relationship between economic condition and FRQ.

The results presented in Table 4.4 further show a negative and significant ($p < 0.01$) relationship between tax rate (Tax) and the FRQI. This result implies that countries with high tax rates will have a poor financial reporting system. This result is not surprising because tax is a significant burden to firms. Therefore, the firms would develop means to reduce their tax burdens. In this context, when the tax rate in a particular country is high, the firms operating in that country may adopt some accounting practices to reduce their profits and tax burdens. These accounting practices may involve understatement of revenue, overstatement of expenses, transfer pricing, tax evasion etc. Though these financial reporting practices may be illegal, however, firms may engage in such practices when their tax burden is unbearable. Therefore, firms operating in countries with high tax rates may be forced to engage in illegitimate accounting practices to reduce their tax burden. Indeed, this result aligns with the findings of previous studies such as those of Amidu et al. (2019); Susanto et al. (2019); Arachi and Bucci (2019); Kuo and Lee (2019). These studies showed that countries with high tax rates generally have poor FRQ by firms because firms engage in EM to avoid taxes.

Furthermore, culture had a positive and significant relationship with FRQ (FRQI). The result suggests that FRQ is high in countries with a high level of individualism. Though the result is

contrary to the study's prediction and existing literature, however, it is plausible. This is because in a country with a high level of individualism employed persons are expected to act according to their interest and for that matter, such countries may have workers who work on an individual basis. This suggests that for employees to protect their interest in terms of security of work and regularity income, there may be a high level of member-checking, where the work of an individual may be checked by another member. This may reduce collisions, errors, commissions and omissions in the preparations of financial reports. This will eventually reduce fraudulent financial reporting practices and other misstatements in financial reporting and, therefore, improve the financial reporting of the firms. The contract findings of Nabar and Boonlert-U-Thai (2007), Doupnik (2008) and Persakis and Iatridis (2016) found individualism to have a negative relationship with FRQ.

The study further estimated whether the pervasiveness of foreign ownership (FOwner) of the firms in SSA has any impact on FRQ (FRQI). The study shows a significant negative ($p < 0.01$) relationship between FOwner and FRQI. This implies that a firm with a large percentage of foreign owners tends to have a lower FRQ. The results are not surprising because, according to An (2015), conflicting prior research reveals that foreign ownership may either enhance or deteriorate FRQ depending on whether foreign owners involve in active monitoring of managers or they are transient. This finding, therefore, supports the transient hypothesis which suggests that foreign investors in SSA are transient investors. Who, instead of monitoring management for value maximising decision, is likely to dispose of their shares in the absence of current profit and therefore have not incentive to monitor firm management. Another possible explanation for this result is that a firm with a high percentage of foreign owners may struggle or find difficulties aligning the local reporting practices with the reporting practices that may be introduced by the foreign owners. This is particularly possible in instances where the foreign owners are fragmented. Each may wish to push their conflicting reporting preferences, which may result in poor reporting practices. This result is consistent with studies by Gill-de-Albornoz and Rusanescu (2018) which concluded that the magnitude of DAs is significantly higher when the parent company is foreign than when it is local. However, the findings conflict with studies by Guo et al. (2015) and An (2015), which suggests that foreign ownership mitigates managerial opportunism, thereby increasing the quality of financial reporting.

Concerning the firm-specific variable, the results demonstrate a negative relationship between the size of the firms (FirmSize) and FRQ (FRQI). However, this relationship is insignificant ($p>0.05$), suggesting that the size of firms does not significantly influence their FRQ. Similarly, the results indicate a negative and insignificant ($p>0.05$) relationship between firm growth rate (FirmGrowth) and the FRQ of countries in SSA. This result suggests that the growth rate of firms is not significant to explain the FRQ of a country. Regarding the return on assets (ROA) of the firms, the results indicate that it has a positive and insignificant ($p>0.05$) relationship with the FRQ of countries in SSA. These results also imply that the ROA of firms in a country does not influence the FRQ of that country. The possible reason for these results may be because firms regardless of their sizes are required to prepare their financial reports based on set standards and regulations. This finding confirms that of Irwandi and Pamugkas (2020)

Lastly, the study predicted a positive relationship between leverage and the FRQ of countries in SSA. The result shows a positive relationship and significant ($p<0.05$) between these variables, which affirms the prediction. This result suggests that an increase in a firm's debt profile will increase its FRQ (FRQI). This result implies that a firm with a higher proportion of debt would have quality financial reporting. This result may be that creditors may demand certain reporting practices from the firms. In addition, since creditors want to ensure that their interest and principles will be paid, they may want the firms to provide appropriate, accurate and relevant financial information that is free from errors. As a result, they make take interest in the reporting practices of the firm, which will result in quality financial reporting. This study confirms Ardison et al. (2012) and Mahboub (2017), who showed that leverage has a positive relationship with FRQ. Their main findings suggest that debt has beneficial consequences on FRQ as high debt increase monitoring which reduces managers discretionary spending and accounting choices.

The study further conducted post-estimation tests to determine whether the model is robust and that the results are reliable. The results show that the model and the estimated results provided are robust and reliable in many ways. Table 4.4 presents the robustness tests results comprising second-order correlation (AR2) and Hansen's J-test results of the models. The p -values of the second-order correlation (AR2) of the model is insignificant ($p>0.05$). Since the AR2 result is insignificant, the null hypothesis is rejected. This implies that the model does not suffer from the problem of autocorrelation. This makes the GMM results robust and reliable. In addition, Hansen's

J-test result is insignificant. This suggests that the null hypothesis is rejected, indicating that the over-identification restrictions assumption on the model is invalid. This result implies that the number of instruments used for the estimation does not have any negative effect on the estimators.

4.2 Investment Protection (IP) and MgtQ in SSA

This section presents the analyses and the results on the relationship between IP and MgtQ in SSA. The IP was measured by three variables, comprising MinInt, the LRI and RegSE. These variables were retrieved from the WEF database. In addition, the MgtQ was measured by two metrics, which are reliance on ProMgt and BodEff. The reliance on the ProMgt variable was obtained from the database of the WEF, which was measured by the extent to which a country employs the services of professionals in senior management positions instead of relatives or friends without regard to merit. As well, the BodEff variable was sourced from the database of the WEF, which was also measured by the extent to which management of firms in a country are accountable to investors and board of directors.

4.2.1 Descriptive statistics

Before the estimation of the relationship between IP and MgtQ, the study presents the descriptive statistics of the variables in Table 4.5.

Table 4.5: Descriptive Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
ProMgt	3,578	5.005	0.5449745	3.71	5.83
BodEff	3,578	5.213	0.6300136	4.00	6.27
MinInt	3,578	4.965	0.8283906	3.40	6.22
LRI	3,578	7.166	1.792262	3.00	10.00
RegSE	3,578	5.162	0.9708464	3.52	6.67
FOwner	3,578	4.928	0.4693142	3.23	6.25
Tax (%)	1,635	32.762	5.38076	14.50	49.60
NatCulture	2,835	48.019	19.25348	15.00	65.00
EcoSize (\$)	3,597	2.24e+11	1.71e+11	4.42e+09	5.68e+11
EcoGrow (%)	3,597	3.770	4.233915	-1.766895	9.67532

Source: Researchers' Estimation, 2020

Notes: Table 4.5 shows the descriptive statistics of national-level variables used in the study. The variables included the dependent variables of ProMgt (Professional Management), BodEff (Board efficacy). The independent variables were Minority Interest protection ($MinInt_{it}$), legal Right Index (LRI_{it}), Regulation of Stock Exchange ($RegSE_{it}$), Economic Growth ($EcoGrow_{it}$), Economic Size which is proxied by GDP

(EcoSize_{it}), Total tax rate (Tax_{it}), national Culture (NatCulture_{it}) and Pervasiveness of foreign ownership (FOwners_{it}).

Table 4.5 shows the summary statistics of the reliance on ProMgt, BodEfff, MinInt, LRI, RegSE and the other country-specific features that were considered in the study. The focus of this objective was to examine the relationship between IP and MgtQ. The results showed that ProMgt had a mean of 5.005 from a range of 3.71 to 5.83. This result suggested that the majority of countries in SSA relied on ProMgt in the running of their corporations. The low standard deviation (SD) of 0.54497 showed a low degree of dispersion among the countries. In addition, the BodEff had a mean of 5.213. The BodEff results ranged from a minimum of 4.00 to a maximum of 6.27, demonstrating that the firms in SSA had an efficient board of directors who are accountable to investors. The standard deviation of the BodEff was 0.63, which also demonstrated a low degree of dispersion among SSA countries. These MgtQ results clearly showed that the MgtQ of firms in SSA approximated the 75th percentile, suggesting that the firms have sound, efficient and accountable management.

Concerning the IP variables, the results show that the mean value of the protection of minority interest is 4.965, with minimum and maximum values of 3.40 and 6.22 respectively. The implication of this result is that majority of the countries in SSA protect the interest of minority investors. This variable scored an SD of 0.8284, which suggests homogeneity among the countries. The results further show that the LRI variable scored a mean of 7.166 from a range of 3.00 and 10.00. This shows that the mean score is near the full mark of 10.00, which indicates that the countries in SSA have a strong legal system to protect investors and creditors. Concerning the regulation of the stock exchange, the mean score is 5.162, with a minimum score of 3.52 and a maximum score of 6.67, which is also near the full score of 7.00. This result suggests that there is a strong regulatory system that protects the various stock exchanges in SSA. In addition, the SD of the RegSE is 0.971, which shows that there is a small variance among the SSA countries on the stock exchange regulatory systems.

The study also considered the specific country features that may influence the MgtQ of the firms in the SSA countries. First, the foreign ownership (FOwner) had a mean of 4.928, which ranges from a minimum score of 3.23 and a maximum score of 6.25. Given that this variable range from a scale of 1.00 to 7.00, this result shows that majority of the firms in SSA are owned by foreign

owners. Concerning the tax rate (TAX) of the countries, the mean score was 32.762, suggesting that on average, the firms in SSA pay as much as 32.762% of their profits as tax. The tax rate ranges from 14.50 to 49.60 and with a standard deviation of 5.381, it shows that there is a high degree of dispersion among the tax rates of SSA countries. In the other data, the mean value of the cultural dimensions (culture) of the countries is 48.019. This demonstrates that the level of individuality among the SSA is high. However, the standard deviation of 19.25 shows a high level of disparity in cultural dimension among the countries in SSA. The economic size (EcoSize) of the countries were also included in the study, which obtained a mean score of \$22.4 billion. Once again, the standard deviation of \$17.1 billion suggests that there is a wide disparity in the size of the economy of countries in SSA. The results further show economic growth rate (EcoGrowth) had a mean score of 3.77. This suggests that the average growth rate of countries in SSA was 3.77% from 2007 to 2017. This suggests that the countries seemed to enjoy economic growth against the backdrop of the financial crises in the year 2008 and the immediate years following it. Nonetheless, the data suggests some firms also suffered a recession, demonstrated by the minimum of -1.767% growth rate.

4.2.2 Multicollinearity Test

In a regression estimation, high collinearity among the independent variables may provide spurious results. As a result, Gujarati and Porter (2010) suggest that researchers must conduct a multicollinearity test before estimating the relationship among the variables. Therefore, this study conducted a multicollinearity test to establish the collinearity among the independent variables. This was achieved through a Pearson correlation analysis. Table 4.6 presents the Pearson correlation results between the variables. The results from Table 4.6 show that the correlation among the variables is weak. The results indicate that the correlation between ProMgt and BodEff is positive and weak ($r = 0.387$). In addition, the correlation between FOwner and MinInt ($r = 0.194$), RegSE ($r = 0.210$), LRI ($r = 0.1245$) and culture ($r = 0.2019$) are positive and very weak, suggesting no multicollinearity issue among these variables.

Some correlations contradict the expectations. For instance, the correlation between EconSize and EconGrowth was -0.6924, which ordinarily was supposed to be positive. As well, there was a negative relationship between tax rate and economic growth and economic size, suggesting that firms in countries with high growth and size pay less tax. However, the majority of the

relationships among the variables are not surprising. Furthermore, the highest correlation coefficients were between ProMgt and RegSe ($r = 0.693$); EcoSize and EcoGrowth ($r = -0.6924$); MinInt and RegSE ($r = 0.675$); TAX and EcoGrowth ($r = -0.6619$) and BodEff and FOwn (0.6524). However, these correlation coefficients are significantly lower than the benchmark of 0.765, which is embraced by many researchers. Apart from these, the other correlation coefficients are less than 0.6. Based on these results, it can be concluded that the variables do not suffer from multicollinearity, therefore, they may not produce spurious results.

Table 4.6: Correlation Matrix

Variables	ProMgt	BodEff	FOwner	Tax	MinInt	RegSE	LRI	Culture	EcoSize	EcoGrow
ProMgt	1.000									
BodEff	0.387***	1.000								
FOwner	0.542***	0.652***	1.000							
Tax	-0.407***	-0.441***	-	1.000						
			0.608***							
MinInt	0.651***	0.629***	0.194***	-0.429***	1.000					
RegSE	0.693***	0.412***	0.210***	-0.362***	0.675***	1.000				
LRI	-0.027***	-0.291***	0.125***	0.380***	-0.131***	-0.046***	1.000			
NatCulture	0.425***	0.345***	0.202***	-0.420***	0.669***	0.639***	-0.122***	1.000		
EcoSize	0.392***	0.242***	0.447***	-0.306**	0.261***	0.362***	0.101***	0.406***	1.000	
EcoGrow	-0.526***	-0.403***	0.429***	-0.662***	-0.641***	0.450***	-0.657***	-0.305***	-0.692***	1.000

Source: Researchers' Estimation

Notes: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level.

4.2.3 Unit Root Test

Researchers admit that most panel data suffer from a unit root which can affect regression results. Given this, it is advised that a unit root test on the variables must precede the regression estimation. This helps to detect whether any of the variables are non-stationary because regressing non-stationary series on each may lead to the production of invalid results. Consequently, the study conducted unit root tests using four different unit root testing techniques. These unit root testing techniques include Augmented Dickey-Fuller (ADF), Phillip Peron (PP), Im-Pesaran-Shin (IPS) and Breitung. The unit root test results are presented in Table 4.7.

Table 4.7: Unit Root Test

Variables	ADF		PP		IPS		Breitung	
	t-stats	Level	t-stats	Level	t-stats	Level	t-stats	Level
ProMgt	710.13	I(0)	409.91	I(0)	1.154	I(0)	20.34	I(0)
BodEff	696.96	I(0)	283.09	I(0)	84.39	I(0)	6.19	I(0)
FOwner	474.11	I(0)	613.66	I(1)	1.697	I(0)	203.94	I(1)
Tax	549.40	I(0)	590.76	I(0)	29.04	I(1)	17.46	I(1)
MinInt	500.03	I(0)	274.61	I(1)	7.374	I(0)	13.614	I(0)
LRI	671.66	I(0)	543.09	I(0)	-0.164	I(0)	2.937	I(0)
RegSE	673.434	I(0)	419.65	I(0)	1.286	I(0)	26.218	I(0)
NatCulture	82.36	I(0)	383.32	I(1)	273.863	I(0)	393.59	I(1)
EcoSize	528.753	I(0)	804.03	I(0)	0.4538	I(0)	2.039	I(0)
EcoGrow	238.73	I(0)	36.75	I(0)	83.29	I(0)	48.43	I(0)

Source: Researchers' Estimation, 2020

Notes: In panel unit root tests, probabilities are computed assuming asymptotic normality. (a) tests the hypothesis of the presence of the individual unit root process, and (b) tests the hypothesis of no unit root in the common unit root process.

Table 4.7 above presents the unit root tests results of the variables. The tests were conducted under the null hypothesis that there is present at both levels and first difference. The unit root test results show that all the variables are stationary at levels, I(0)s or stationary and the first difference, I(1)s. Concerning the ADF techniques, all the variables are I(0)s. Concerning the PP, IPS and Breitung results, all the variables are either I(0)s or I(1)s. The different techniques were necessary to validate the results of the various techniques. Based on the consistency of the results of the various methods, the study rejects the null hypothesis of the presence of unit root at both levels and the first difference. This indicates that none of the variables is stationary at the second difference. This suggests that the regression analysis can incorporate both I(0)

and I(1) variables, suggesting that the series are produced at the stationary process. In addition, the stationarity of the results indicates that a System GMM approach is suitable for the estimation of the parameters in the model.

4.2.4 The relationship between IP and ProMgt

This section presents the results on the relationship between IP and reliance on ProMgt. The results are presented in Table 4.8 below. The results are presented according to four models. Models 1 to 3 examined the individual impact of each of the three components of IP, comprising the protection of MinInt, the LRI and RegSE, respectively, on the extent to which firms in SSA rely on the services of ProMgt. In addition, Model 4 estimates the relative impacts of the aggregate of the three components of IP (determined as the average of MinInt, the LRI and RegSE) on the reliance of ProMgt by firms in SSA.

Table 4.8: Regression Results of IP and ProMgt

ProMgt	Model 1	Model 2	Model 3	Model 4
Variables	MinInt	LRI	RegSE	Inv. Protection
ProMgt _{it-1}	0.2456*** (6.27)	1.4154*** (4.58)	0.1269** (2.54)	.13802*** (3.79)
MinInt _{it}	0.2541 (1.58)	-	-	0.202783*** (2.83)
LRI _{it}	-	0.0917*** (3.26)	-	-0.0289*** (-7.32)
RegSE _{it}	-	-	0.0173 (0.27)	-0.2932*** (-3.81)
FOwner _{it}	0.2801*** (2.57)	-1.019* (-1.81)	0.3840*** (4.02)	0.6161*** (39.79)
Tax _{it}	0.0316*** (5.15)	0.1119*** (2.47)	0.0413*** (3.45)	0.0623*** (8.13)
NatCulture _{it}	0.0024 (0.38)	-0.0141*** (-2.50)	0.0344*** (5.16)	0.03712*** (8.08)
EcoSize _{it}	4.25e-13** (1.97)	1.27e-12*** (2.27)	-1.42e-12*** (-3.28)	4.07e-13*** (5.53)
EcoGrow _{it}	-0.0667*** (-5.78)	-0.4148*** (-2.97)	-0.0397*** (-7.39)	-0.0613*** (-13.92)

Post-estimation Tests				
AR2	0.582	0.257	0.201	0.549
Hansen J Stats	0.479	0.308	0.139	0.104
Number of Observ.	1247	1247	1247	1247
Number of Int	29	39	33	34
Cross-sections	310	310	310	310

Source: Researchers' Estimation

t-statistics in parenthesis; *** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Notes: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level. Notes: From table 4.8, the variables used to estimate the above regression results for this study were the dependent variable of ProMgt (Professional Management). The independent variables were Minority Interest protection ($MinInt_{it}$), legal Right Index (LRI_{it}) Regulation of Stock Exchange ($RegSE_{it}$) Economic Growth ($EcoGrow_{it}$) Economic Size which is proxied by GDP ($EcoSize_{it}$) Total tax rate (Tax_{it}), national Culture ($NatCulture_{it}$) and Pervasiveness of foreign ownership ($FOwners_{it}$).

Table 4.8 above presents the result of the impact of IP on the reliance on the ProMgt of firms in SSA. The results are in three forms, comprising the coefficients, *t*-statistics (in parenthesis) and the level of significance of the coefficients, which are represented by asterisks. Confirming the study's expectation, the results show that the lagged reliance on $ProMgt_{it-1}$ has a positive relationship with $ProMgt_{it}$ in all four models. The results are significant at 1% in all the models, except in Model 3, which is significant at 5% These results indicate that the firms' reliance on ProMgt is influenced by their past practice, that is on how they have relied on ProMgt in previous years.

The study further investigated whether the protection of $MinInt_{it}$, LRI_{it} and the regulation of stock exchange ($RegSE_{it}$) have a positive effect on the extent of firms reliance on $ProMgt_{it}$. A-priori, the study expected a positive link between these variables. Consistent with the a-priori, the results in Model 1 show that $MinInt_{it}$ has a positive relationship with $ProMgt_{it}$. With a coefficient of 0.2541, it suggests that a percentage increase in the strength $MinInt_{it}$ would increase $ProMgt_{it}$ by 25,41% However, the level of relationship between these variables is insignificant. This suggests that although an increase in the strength of protection of interests of minority shareholders in SSA countries will increase their reliance on professional management, the level of increment may not be substantial. The result further affirms the expectation of the study by demonstrating in Model 2 that LRI_{it} has a positive and significant relationship with $ProMgt_{it}$. This result implies that an increase in LRI_{it} would translate into a significant increment in $ProMgt_{it}$. The coefficient of LRI_{it} is 0.0917, suggesting that a unit

increase in the strength of legal rights of investors in SSA country would result in a 9.17% increase in reliance on ProMgt_{it}.

In model 3, the study estimated the impact of the level of RegSE_{it} in SSA on ProMgt_{it}. This result also confirms the expectation by showing a positive but insignificant relationship between RegSE_{it} and ProMgt_{it}. This result implies that a firm that is listed on a stock exchange that is heavily regulated would seek the services of ProMgt. The result shows a coefficient of 0.0173 for RegSE_{it}, which demonstrates that a unit increase in RegSE_{it} will also increase the reliance on ProMgt_{it} by 1.73%, albeit insignificant. This result is conceivable because a country that has a strong, robust and effective IP system in the context of the protection of the interest of minority shareholders, high LRI and effective RegSE may have a strong and complex business environment. The strong and complex business environment may require extra expertise, which may be in the form of hiring of ProMgt. Another interesting facet of this result is that boards of directors of firms in weak IP countries may be less independent compared to firms in a stronger IP environment (Aggarwal et al., 2009).

Model 4 also examined the relative impact of the various components of IP on the reliance of ProMgt among firms in SSA. The model predicted a positive relationship between the aggregate components of IP comprising the protection of MinInt_{it}, LRI_{it} and RegSE_{it} on one side and reliance on ProMgt_{it} on the other side. The results demonstrate that apart from the RegSE_{it-1} which had a negative sign, all the other variables obtained positive signs. Besides, the relationship between these variables is significant at 1%. The positive sign between MinInt_{it} and LRI_{it} on one side and ProMgt_{it} on the other side indicates that a country with a strong system to protect minority interest whilst at the same time having higher legal right interest would rely on ProMgt.

Indeed, these results were expected because firms in a country that enjoys strong protection of minority interest and has a strong investor legal right may be compelled or pressured to be governed in a certain way. This will demand that they engage the services of professional in senior management positions instead of relatives or friends without regard to merit and qualifications. Furthermore, such practices are not surprising because recent literature such as those of Adeoye (2013) and Withaar (2016) show that firms that engage the services of ProMgt benefits from good corporate governance and higher performance, therefore, these firms would also want to enjoy such benefits. These results align with the study's hypothesis, as well as the results of previous studies such as those of Aggarwal et al. (2009), Withaar (2016) and Garcia-

Sanchez and Noquera-Gamez (2018) who showed that $MinInt_{it}$ and LRI_{it} simultaneously have a positive impact on $ProMgt$. On the contrary, these results contradict the findings of previous studies, including those of Isaboke and Naziri (2018) and Kobbi-Fakhfakh et al. (2020), who reported a negative relationship between $RegSE_{it}$ and $ProMgt_{it}$, when there is a strong $MinInt_{it}$ and LRI_{it} . Nonetheless, these results are consistent with the perspective of the Institutional Theory which espouses that the role of institutions, law and regulations on the behaviour of firms through coercive and normative isomorphism may influence the quality of staff engaged by firms. That is in a jurisdiction with quality laws, institutions, and enforcement system or strict IP regime, firms are more exposed to high risk of litigation and cost, and consequently, to mitigate such risk, the firm will rely more on professional managers chosen on merit and qualifications to holds senior management positions than use relatives or friends without regard to merit. Therefore, $MgtQ$ significantly associated with a country's IP regime in SSA.

On the other hand, the negative sign of the coefficient of $RegSE_{it-1}$ in Model 4 runs contrary to the hypothesis. The result shows a negative and significant relationship between $RegSE_{it}$ and $ProMgt_{it}$. The negative sign shows that when a country has strong protection for minority interest and a strong investor legal right and enforcement system, strong regulation of stock exchange will result in a decrease in the reliance on $ProMgt$. A possible explanation for this result is that when a country has a strong and efficient system that protect investors, it serves as disincentives to the shareholders and the board to engage the services of $ProMgt$. This is not surprising, because such a system may have been instituted to protect investors, therefore, the engagement of $ProMgt$ may be a duplication of duties and a waste of resources. This result also confirms the findings of previous studies such as that of Pathak and Sun (2013).

Other country-specific variables that can impact the $ProMgt_{it}$ of firms were also considered in the study. These variables include the extent of foreign ownership of firms ($FOwner_{it}$), total tax rate (Tax_{it-1}), the culture of the respective countries, economic size and the economic growth of the SSA countries. Concerning the $FOwner_{it}$ the results show that it has a positive and significant ($p < 0.01$) relationship with $ProMgt_{it}$ in Models 1, 3 and 4. These results show that firms with a high percentage of foreign ownership rely more on $ProMgt$ than those with a large percentage of local or domestic ownership. This result may be as a result of the fact that foreign-owned firms may have more resources to engage the services of $ProMgt$ than domestic dominated firms, hence they rely more on professional for senior management positions. In addition, a foreign-owned firm has more robust recruitment processes than a non-foreign own firm that may rely heavily on family, friends and other relatives for managerial positions

without regard to merit. The results further show that Tax_{it-1} has a positive and significant ($p < 0.01$) relationship with $ProMgt_{it}$ in all four models. These results also suggest that firms in a country with a high tax rate rely on the services of ProMgt. This result is plausible because tax represents one of the largest expenses to a company. Because of this, firms normally engage in tax planning activities to reduce their tax burdens. However, tax planning demands experienced, knowledgeable and astute professionals which firms may not be able to find within the firm. Firms would, therefore, turn to ProMgt to manage their tax planning activities for them, hence the positive and significant relationship between Tax_{it-1} and $ProMgt_{it}$. This result is consistent with the findings of Salawu (2017) and Khaoula and Moez (2019) who found a positive relationship between Tax_{it-1} and $ProMgt_{it}$.

The study also predicted a positive relationship between a country's culture and the extent to which firms in that country rely on ProMgt. Affirming the hypothesis of this study, the results demonstrate that culture has a positive relationship with $ProMgt_{it}$ in Models 1, 3 and 4. However, the level of the relationship is significant at 1% in only model 3 and 4. These results imply that firms in countries with a high level of individualism depend more on ProMgt. The explanation for this result is that firms in countries with high levels of individualism may lack cohesion, camaraderie, comradeship and unity among their staff. This would mean that the staff may not share ideas and may not be willing to either seek help from a colleague or offer to help a colleague. This will stifle their ability to innovate, learn and solve difficult problems. In this context, reliance on ProMgt for most of the complex issues in the firms will be apparent.

The results further confirm the expectation that the size of an economy ($EcoSize_{it-1}$) positively influences the $ProMgt_{it}$ of firms in that country. Models 1, 2 and 4 show that $EcoSize_{it-1}$ has a positive and significant impact on $ProMgt_{it}$. This implies that firms operating in bigger economies will rely more on ProMgt than those operating in smaller economies. This result supports the views that bigger economies may have many firms with larger firm assets. Therefore, the government and regulators in those countries may put policies in place to protect the interest of investors. This will result in the firm demanding the services of ProMgt. However, the results in Model 3 are contrary to the expectation since the coefficient of $EcoSize_{it-1}$ is negative. This may be the fact that firms operating in larger economies with the heavily regulated stock exchange may see no need to engage the services of ProMgt. However, the dominant indication here is that $EcoSize_{it}$ has a positive relationship with $ProMgt_{it}$, which supports the findings of Abedana et al. (2016) and Persakis and Iatridis (2016).

The study further predicted a positive relationship between economic growth ($EcoGrow_{it}$) and $ProMgt_{it}$. Diverging from the expectation, the results show a negative and significant ($p < 0.01$) relationship between $EcoGrow_{it}$ and $ProMgt_{it}$. These results suggest that a firm that operates in a country with high growth relies less on $ProMgt$. Once again, this result may be explained that these countries may already have good systems to ensure that firms operate within the confines of the law, whilst adhering to good corporate governance practices. Therefore, the firms may not see the need to engage the services of $ProMgt$.

The results provided are also robust in many ways. The robustness tests results comprising second-order correlation (AR2) and Hansen's J-test results of the models are also presented in Table 4.8. First, the p -values of the second-order correlation (AR2) of all the models are insignificant ($p > 0.05$). Since the AR2 results are insignificant in all the models, the null hypothesis rejected. This implies that all the models do not suffer from the problem of autocorrelation. This makes the GMM results robust and reliable. In addition, Hansen's J-test results are insignificant in all the models. This suggests that the null hypothesis is rejected, indicating that the over-identification restrictions on the model are invalid. This result implies that the number of instruments used for the estimation does not have any negative effect on the estimators.

4.2.5 The relationship between IP and BodEff

In this section, the results concerning the relationship between IP and $BodEff_{it}$ are presented. The results are presented based on four models. Models 1, 2 and 3 investigated the impact of each of the three components of IP (protection of $MinInt_{it}$, LRI and $RegSE$) respectively on the efficiency of the board of firms in SSA. Besides, Model 4 examined the relative impacts of the aggregate measure of IP on the $BodEff_{it}$ of firms in SSA. The results are provided in Table 4.9 below. The results in the Table 4.9 comprise the coefficients, t -statistics (in parenthesis) and the level of significance of the coefficients, which are represented by asterisks.

Table 4.9: Regression Results of IP and Board Efficiency

	Model 1	Model 2	Model 3	Model 4
Variables	MinInt	LRI	RegSE	Inv. Protection
Constant	10.193*** (10.30)	4.085*** (6.58)	1.947*** (5.61)	2.742*** (6.53)
$BodEff_{it-1}$	0.6189*** (3.16)	3.4863*** (7.46)	2.3073*** (13.90)	0.1893*** (4.18)

MinInt _{it}	0.2835*** (4.18)	-	-	10.0056*** (16.10)
LRI _{it}	-	0.1549*** (4.13)	-	-0.2589*** (-13.73)
RegSE _{it}	-	-	-0.5365*** (-6.05)	-6.7795*** (-15.25)
FOwner _{it}	0.1556 (1.58)	1.8191*** (5.43)	1.6532*** (7.37)	0.2047** (2.28)
TAX _{it}	-0.0651*** (-6.45)	-0.0904*** (-3.91)	0.1076*** (7.71)	0.3241*** (15.17)
Culture _{it}	-0.1271 *** (-4.86)	-0.0715*** (-5.13)	0.0018 (0.691)	-0.5823*** (-13.09)
EcoSize _{it}	4.68e-12*** (4.75)	2.21e-12*** (5.07)	2.31e-12*** (7.85)	3.48e-11 *** (13.35)
EcoGrowth _{it}	-0.1214*** (-5.07)	0.1825*** (4.33)	-0.0154** (-2.35)	-0.3517*** (-16.19)

Post-estimation Tests				
AR2	0.501	0.319	0.362	0.208
Hansen J Stats	0.293	0.239	0.093	0.285
Number of Observ.	1316	1309	1312	1329
Number of Int	30	23	20	40
Cross-sections	310	310	310	310

Source: Researchers' Estimation, 2020

t-statistics in parenthesis; *** = p<0.01; ** = p<0.05; * = p<0.1

Notes: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level.

Table 4.9 above shows the regression results of the relationship between IP and BodEff of firms in SSA.

The following variables were included in the model estimation. The independent variables were Minority Interest protection (*MinInt_{it}*), legal Right Index (*LRI_{it}*), Regulation of Stock Exchange (*RegSE_{it}*), Economic Growth (*EcoGrow_{it}*), Economic Size which is proxied by GDP (*EcoSize_{it}*), Total tax rate (*Tax_{it}*), national Culture (*NatCulture_{it}*) and Pervasiveness of foreign ownership (*FOwners_{it}*).

The results of the impact of IP on the BodEff of firms in SSA are presented in Table 4.9. First, the results show that the lagged BodEff_{it-1} has a positive and significant relationship with BodEff_{it}. These results showed that the previous level of efficiency of the board of the firms in SSA significantly explains the current level of efficiency of the board in SSA. The study anticipated a positive relationship between the protection of MinInt_{it}, LRI_{it} and RegSE on the

efficiency of the board of firms in SSA. The result in Model 1 confirms the expectation, which indicates that $MinInt_{it-1}$ has a positive and significant relationship with $BodEff_{it}$. This result suggests that an increase in $MinInt_{it-1}$ would result in a positive and significant ($p<0.01$) increase in $BodEff_{it}$ of the firms in SSA. In addition, the coefficient of $MinInt_{it-1}$ is 0.2835, which suggests that a unit increase in the strength of protection of minority interest would result in a 28,35% increase in $BodEff_{it}$.

This result may be a result of the need for an efficient board to ensure that the interest of the minority shareholders is protected within the legal and institutional frameworks of the countries they operate. The possible reason is that in a country where laws and enforcement system on minority shareholders interest protection are stronger, management is more accountable to investors and the board of directors. Such countries will also require that the firms must appoint a certain calibre of the board of directors with a proven and demonstrable track record of business and professional achievement. An example is, following the Ghanaian banking crises in the year 2018, the Bank of Ghana and the Securities and Exchange Commission of Ghana developed a corporate governance system for the banks. This corporate governance system required the banks to appoint a board of directors who satisfy certain stated criteria. This demonstrates that firms would have an efficient board if the country within which they operate do have laws and enforcement systems to protect the interest of minority shareholders. The result agrees with the findings of Isaboke and Naziri (2018) and Kobbi-Fakhfakh et al. (2020). These authors provided evidence to show that a country with a strong system to protect the interest of minority shareholders of firms would have an efficient board of directors. However, few studies such as Pathak and Sun (2013) reported contrary evidence which showed that $MinInt_{it}$ has no relationship with $BodEff_{it}$.

In addition, Model 2 anticipated a positive relationship between lagged LRI_{it} and $BodEff_{it}$. The results in Model 2 showed that LRI_{it-1} had a positive and significant impact on $BodEff_{it}$. The result is significant at 1%, with a coefficient of 0.1549. The coefficient indicates that a unit increase in LRI_{it} will lead to an increase in $BodEff_{it}$ by 15,48% This result confirms the expectation of the study by showing that the lagged legal right index results in an increase in the efficacy of the board of directors of firms in SSA. This result is reasonable since a country that has strong legal rights right would have an efficient board of directors. This is because, a country that has systems, institutions and laws will require that the firms in that country should operate within the confines of such systems and laws. The ability to work within these legal regimes and systems will demand an efficient board, who are mandated to formulate strategies

to achieve the strategic objectives of firms. This result is also consistent with the view that companies appoint efficient, qualified and experienced individuals as a board of directors in a country with a strong legal index. In addition, this finding affirms the findings of earlier studies such as those of Withaar (2016) and Isaboke and Naziri (2018) who found that firms in countries with a strong legal right index enjoy an efficient board.

The a priori of Model 3 was that the regulation of stock exchange ($RegSE_{it}$) had a positive impact on the $BodEff_{it}$ of firms in SSA. Surprisingly, the result deviated from the expectation of the study, because the coefficient of $RegSE_{it}$ was negative and significant at 1%. The negative coefficient of $RegSE_{it}$ suggested that an increase in the regulations of stock exchanges ($RegSE_{it}$) in SSA would result in a decrease in the $BodEff$ of firms operating in those countries. The coefficient of $RegSE_{it}$ was -0.5363, which indicated that a unit increase in the $RegSE_{it-1}$ would result in a 53.63% decrease in the efficiency of the board of firms in SSA. Although this result was inconsistent with the theory and the expectations of the study, nonetheless, it is plausible in many ways. First, it can be explained that investors in a country that have a strong and efficient stock exchange regulatory system may think that they do not require an efficient board of directors. This is because the stock exchange may be efficient at regulating the activities of the firms, hence the board of directors may be regarded as irrelevant. Another reason is that a firm that operates in a well-regulated stock exchange may have a strong and efficient system that automatically directs the management and board of directors, therefore, the calibre and experience of the board of directors may not be relevant.

Model 4 examined the relative impact of all the three IP variables on the efficacy of the board of directors of firms in SSA. The study anticipated a positive relationship between the protection of $MinInt_{it}$, legal right index (LRI_{it}) and regulation of stock exchange (RSE) on the efficiency of the board of firms in SSA. The result in Model 4 confirms the expectation, which indicates that all the three variables, comprising $MinInt_{it-1}$, LRI_{it-1} and $RegSE_{it-1}$ have positive and significant relationships with $BodEff_{it}$. These results suggest that an improvement in IP regime ($MinInt_{it}$, LRI_{it} and $RegSE_{it}$) would result in a positive and significant ($p < 0.01$) increase in $BodEff_{it}$ of firms in SSA. Overall, these results imply that the extent to which management is accountable to investors and boards of directors is higher in SSA country with a strong IP regime (aggregate of strong protection of minority shareholders interest, strong legal right index and strong stock exchange regulation) than in SSA countries with a weak IP regime.

Similar to the foregoing explanations, this result is reasonable because most stock exchanges are regulated to protect the interest of investors. Such regulations would involve a mandate for firms to employ or appoint a board of directors based on some criteria. Therefore, it makes sense that a heavily regulated stock exchange would have an efficient board of directors because such regulations will force firms to comply with certain standards and laws during the process of appointing a board of directors. Another point is that companies that operate in a country that protects the interest of investors will be cognizant that they require an efficient board of directors so as not to violate or break the regulations. Indeed, the firms may not want to violate the regulations because such acts may come with sanctions, which may hurt the finances and reputations of the firms. To avoid this, firms would go to all lengths to ensure an efficient board of directors in countries with efficient systems, laws and regulations to protect investors. This result agrees with the findings of earlier studies such as Kobbi-Fakhfakh et al. (2020) who demonstrated a positive and significant relationship between $BodEff$ and the protection of investors' interest.

Concerning the control variables, the study further investigated the relationship between the extent of foreign ownership of firms in SSA ($FOwner_{it}$), total tax rates (TAX_{it}), culture ($NatCulture_{it}$), size of an economy ($EcoSize_{it}$) and the economic growth ($EcoGrow_{it}$) on one hand and the efficacy of board of directors of firms ($BodEff$) on the other side. Consistent with the expectation, the results show that $FOwner_{it}$ has a positive relationship with $BodEff_{it}$ in all the models. However, the level of relationship between these variables is significant at 1% in only Models 2, 3 and 4. The positive relationship between $FOwner_{it}$ and $BodEff_{it}$ suggests that a firm with a majority foreign ownership percentage has a more efficient board of directors than their counterparts with a more domestic ownership percentage. The possible explanation for this result is that foreign-owned firms may have more resources to appoint or employ an efficient board of directors. In addition, foreign-owned firms may have a pool of experienced and efficient staff and shareholders to appoint a board of directors. This finding is consistent with the evidence provided by Aggarwal et al. (2009) and Garcia-Sanchez and Noquera-Gamez (2018).

The results further show that the total tax rate (Tax_{it-1}) has a negative and significant ($p < 0.01$) relationship with $BodEff_{it}$ in Models 1 and 2. Conversely, the results showed a positive and significant relationship between Tax_{it-1} and $BodEff_{it}$ in Models 3 and 4. The implication of the negative relationship between Tax_{it-1} and $BodEff_{it}$ in Models 1 and 2 is that an increase in the tax rate would result in a decrease in $BodEff$ in countries with a higher LRI and protection of

MinInt. Although, this result deviates from the expectation, however, a possible explanation for this result is that firms in countries with the strong legal right protection and protect the interest of minority shareholders may not want to pay more for the services of an efficient board of directors when the tax rate is also high. They may do so to save resources to compensate for the high tax expenses.

On the other hand, a positive relationship between Tax_{it-1} and $BodEff_{it}$ in models 3 and 4 implies that an increase in the tax rate would lead to an increase in $BodEff$ in countries with a robust regulation of stock exchange and a higher IP regime. This may be that countries with a high tax rate may appoint an efficient and experienced board of director to formulate strategies to reduce their tax liabilities. This result is not surprising because tax represents one of the largest expenses to a company, therefore, firms usually find ways of reducing their tax burdens through tax planning. Meanwhile, tax planning requires a board of directors who are knowledgeable and experience. Firms would, therefore, appoint an efficient board of directors to manage their tax planning activities, hence the positive and significant relationship between TAX_{it-1} and $BodEff_{it}$. This result confirms the findings of Salawu (2017) and Khaoula and Moez (2019) who found a positive relationship between tax rate (TAX_{it-1}) and $BodEff_{it}$.

Regarding the culture variable ($Culture_{it}$), the results demonstrate that it has a negative relationship and significant ($p < 0.01$) with $BodEff_{it}$ in Models 1, 2 and 4. These results imply that a country with a lower level of individualism among its citizens would have a higher level of $BodEff$ among its firms. The plausible reason for this result is that firms in countries with high levels of individualism may lack coordination among their board of directors. This would mean that the board of directors may not share ideas and may not be willing to either seek help from a colleague or offer to help a colleague. This will stifle their ability to share ideas, innovate and learn from each other. In such a situation, firms that operate in countries with a high level of individualism will lack an efficient board of directors, which is consistent with the findings of Abedana et al. (2016) and Persakis and Iatridis (2016).

The study further predicted a positive relationship between the size of an economy ($EcoSize_{it}$) and $BodEff_{it}$. The result confirms the study's prediction by showing that the size of an economy ($EcoSize_{it}$) has a positive and significant ($p < 0.01$) impact on $BodEff_{it}$ in all the models. This result implies that firms that operate in larger economies in terms of GDP would have a higher level of $BodEff$. This result supports the views that bigger economies may have many firms with larger firm assets. Therefore, the government and regulators in those countries may put

policies in place to protect the interest of investors. Such regulations may expect firms to appoint a board of directors who are knowledgeable and experienced. This will result in the firm appointing an efficient board of directors.

The study also anticipated a positive relationship between a country's economic growth ($EcoGrowth_{it-1}$) and the $BodEff_{it}$ of its firms. The result which is inconsistent with the expectation shows a negative and significant ($p < 0.101$) relationship between economic growth ($EcoGrowth_{it-1}$) and $BodEff$ in Models 1, 3 and 4. The negative relationship between these variables shows that when a country experiences higher growth, the level of management accountability to investors and board minimises (that is decreasing $BodEff_i$). These countries may already have good systems to ensure that firms operate within the confines of the law, whilst adhering to good corporate governance practices. Therefore, the firms may consider the appointment of an efficient board of directors as unnecessary especially if it comes with additional cost. This finding supports the suggestion of Cohen and Zarowin (2007) that the tendencies for management and board misbehave increases as economic conditions improve.

The study also tested for the robustness of the results and the adequacy of the variables used for the estimation. This was done through a second-order correlation (AR2) and Hansen's J-test. The robustness tests results comprising second-order correlation (AR2) and Hansen's J-test results of the models are also presented in Table 4.13. First, the p -values of the AR2 of all the models are insignificant ($p > 0.05$). The insignificance of the p -values of the AR2 leads us to reject the null hypothesis. This suggests that all the models do not suffer from the problem of autocorrelation, emphasising that the GMM results are robust and reliable. Hansen's J-test results are also insignificant in all the models. This implies that the null hypothesis is rejected, indicating that the over-identification restrictions on the model are invalid. This result suggests that the number of instruments used for the estimation does not have any negative effect on the estimators.

4.3 Audit Quality (AudQ) and FRQ in SSA

This section presents the results of the relationship between AudQ and FRQ in SSA. The study used the size of audit firms (Big4 and Non-Big4) to measure AudQ. The FRQ is a firm-specific variable that was measured based on three variables, comprising AC AQ and DA. AC measures the asymmetry timeliness in recognising economic gains versus losses. Conservative accounting imposes more stringent requirements when recognising economic gains than when recognising losses. Good accounting practice requires firms to be conservative instead of

aggressive in recognising gains and losses. The AQ was measured for its accuracy in predicting associated future cash flows. DA was used to measure the degree of earnings management. The more extensively a company is engaged in earnings management which is indicative of high DA the lower is the company's FRQ. It is expected that the use of these measures will enhance the robustness of the inferences about the association between AudQ and FRQ.

4.3.1 Descriptive statistics

Table 4.10 below presents the descriptive statistics of the relationship between AudQ and FRQ in SSA reflective of this model.

Table 4.10: Descriptive Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
AFRQ	2923	1.1210	0.1111	0.6710	3.2112
AudQ	3597	0.791	0.406	0.000	1.000
AC	3154	0.8018	0.1091	0.1625	1.9206
AQ	3066	0.6230	0.2522	0.0751	1.4014
DA	3267	0.4902	0.438	0.0926	0.9877
Ethics	3578	1.618	0.103	1.413	1.815
IP	3,597	41.7975	13.3369	0	71.82
ProMgt	3578	5.005	0.545	3.710	5.830
ROA (%)	3302	6.369	24.324	-56.97	460.432
LEV (%)	3270	38.7223	47.5396	0.779	267.735
FirmGrow (%)	3273	39.113	12.037	-10.03	47.389
FOwner	3578	4.9281	0.4693	3.23	6.25
Tax (%)	1635	32.762	5.381	14.500	49.600
FirmSize (\$000)	3341	35007.64	308311.9	105.579	1.66e+07
EcoSize (\$)	3597	2.24e+11	1.71e+11	4.42e+09	5.68e+11
EcoGrow (%)	3270	3.873	4.382	-17.669	19.675

Source: Researchers' Estimation

Notes: Table 4.10 shows the descriptive statistics of both firm-specific and national level variables used in the study. The dependent variable was FRQ which is denoted by four variables, namely AFRQ_{it-1} (aggregate financial reporting quality index), AC_{it-1}, (Accounting Conservatism) AQ_{it-1} and DA_{it-1} (Discretionary Accrual). The independent variables were AUDQ_{it} (Auditor Quality proxied by Big4 dummy), ProMgt_{it}, BodEff, Ethics_{it}, (Corporate ethics), EcoGrowth, EcoSize (economic size, which is proxied by GDP), Tax_{it-1} (total tax rate), FOwner_{it} (Foreign Ownership, Firm Size (which is proxied by total assets), Firm growth (which is proxied by Sales growth rate), ROA (return on assets, representing profitability) and LEV (financial leverage).

The results reveal some interesting features of the AudQ and FRQ in the SSA region. The study found the average score of the FRQ (AFRQ) of firms in the SSA region to be 1.121 with minimum and maximum values of 0.671 and 3.2112, respectively. For the AudQ variable, the study found that it ranges between 0.000 in 2007 and 1.000 in 2017 as shown by the minimum and maximum values. The implication of this is that while some firms in SSA have very low

AudQ, others have a very high degree of AudQ to ensure improvement in FRQ in SSA. The table also shows the minimum and maximum values of 0.1625 and 1.9206 respectively with a mean score of 0.8018 for the AC. The study also reports 0.0751 and 1.4014 as the minimum and maximum values for AQ variable where a small value indicates poor reporting quality (Desai et al., 2006; Richardson et al., 2001), implying that the firms do not practice quality accruals and that accuracy of accruals in predicting associated future cash flows will be lower is lower.

Regarding DA, which is a measure of EM and is defined as the amount of asset or liability that is not mandatory but is recorded in the system and that would be realised later when settled, the study reveals a mean score of 0.4902 for it with a minimum and maximum values of 0.0926 and 0.9877 respectively. Here again, a higher value indicates a poor FRQ and vice versa. The result indicates that some firms in SSA still show signs of good FRQ.

The study found the ethical behaviour (ethics) variable which captures the level of corporate ethics of firms in SSA interaction with public officials, politicians and other firms to range between 1.413 and 1.815 and minimum and maximum values. This means that majority of firms in SSA exhibit low ethical behaviour as evidenced by their low mean score value of 1.618 which falls far below the highest expected benchmark of 7 for excellent ethical behaviour for firms. Regarding the reliance on ProMgt by firms in SSA, the study found that these firms rely largely on professional people with merit, rather than family and friends without merits concerning seeking professional services. This is supported by the mean score of 5.005 which is not far from the expected benchmark value of 7 that the World Bank recommends.

Another important observation the study reveals is the ROA of the firms which shows their level of profitability. It was found to range between -56.697 and 460.432 as a minimum and maximum values with a mean score of 6.369. This suggests that the majority of the firms were profitable during the study period. The financial leverage positions of firms in the SSA shows a relatively low level with minimum and maximum values of 7.79 and 267.735 with a mean score of 38.722. The growth variable of firms in SSA shows a minimum value of -10.03 while the maximum value is 47.389, indicating that most of the firms broadly experienced growth. Concerning the foreign ownership stakes in these firms, the study found that there were low levels of foreign investors ownership in firms in SSA. This is evidenced by the minimum and maximum values of 3.23 and 6.25 respectively with a mean score of 4.9281.

Also, regarding the percentage of tax that the firms pay on their profits, the study found that an average firm in SSA pays around 32,76% on their profit as tax with minimum and maximum values of 14,5% and 49,6% respectively. The implication is that firms in SSA pay a relatively high amount of tax on their profits. On the sizes of the firms in SSA, they appear to be of various sizes of which the average size of the firm is \$35 006 640. Further, the sizes of the various economies (EcoSize) in SSA where these firms are located are relatively the same. The average size of these economies in terms of gross domestic product (GDP) is \$22.4 billion whereas the minimum and the maximum values for these economies range between \$4.4 billion and \$568.4 billion respectively. Lastly, the study found that these economies experience different levels of growth ranging from a minimum of -17,669% to a maximum of 19,675% with an average of 3,873%, suggesting that countries in SSA where these firms are allocated largely do not show signs of high growth as evidenced by their low average growth rate of 3,873%

4.3.2 Correlation Analysis

Table 4.11 reports the correlation results of the relationship that exist among the various explanatory variables. The correlations are included to usually check for multicollinearity. A correlation of 0.7 and above between independent variables indicates the presence of multicollinearity (Marcoulides & RayKov, 2019). From Table 4.6, the highest correlation was 0.683, which is between Ethics and ProMgt. However, for a robustness check, the VIF was also conducted. The results of the VIF test show that all the variables are far from being correlated. the estimation shows that the VIF of all variables is less than the threshold of ten that is suggested in the literature (Salmeron et al., 2018). These outcomes suggest that all variables used in this analysis do not suffer from multicollinearity. It can be observed from the table that the FOwner variable has a positive relationship with ProMgt. The tax variable has a negative relationship with ProMgt and FOwner

The economic size (EcoSize) variable is also positively related with ProMgt, FOwner and Ethics. It is, however, negatively related to the Tax variable. Again, from the table, the economic growth (EcoGrowth) index negatively relates to ProMgt, Ethics and GDP. Nonetheless, the economic growth index has a positive association with FOwner and Tax. Regarding ROAs, it is positively related to all the other indices except Tax, GDP and Δ GDP. The correlation table also provides evidence of LEV having a negative relationship with all the other explanatory variables apart from the Tax which it was positively related to. Further, the

firm sizes variable also conspicuously shows a negative relationship with all the remaining variables except the ROA and the LEV. Lastly, concerning the firms' growth index, Table 4.6 shows that it has a negative relationship with the FOwner, Tax, Ethics, EcoSize, EcoGrow, LEV and FirmSize. The Firm Growth, however, is positively related to ProMgt and ROA.

Table 4.11: Correlation Matrix

	ProMgt	AudQ	FOwn	TAX	Ethics	IP	GDP	ΔGDP	ROA	LEV	FirmSiz	FirmG
ProMgt	1.000											
AudQ	-0.055**	1.000										
FOwn	.351***	-0.083**	1.000									
Tax	-.210***	0.040	-.426***	1.000								
Ethics	.683***	-0.016	.582***	-.393***	1.000							
IP	0.642***	-0.093*	0.717***	-0.369***	0.273***	1.000						
GDP	.378***	-0.120**	.412***	-.082	.134***	.551***	1.000					
ΔGDP	-.254***	0.056**	0.031***	.274***	-.212***	-.418***	-.221***	1.000				
ROA	.056***	0.147***	.068***	-.050	.073***	0.112***	-.017***	-.007***	1.000			
LEV	-0.022**	0.061**	-.053***	0.005***	-.038***	0.137*	-.027*	-.013	-.027***	1.000		
FirmSize	-.068***	0.224***	-.090***	.135***	-.093***	0.079***	-.014***	-.092	.028***	.003*	1.000	
FirmGrowth	.021***	-0.008	-.118***	-.083***	-.035***	0.140***	-.043***	-.056	.250***	-.002**	-.0,006**	1.000

Source: Researcher's Estimation

Notes: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level.

4.3.3 Unit Root Test

The study used four different unit root tests of Augmented Dickey-Fuller (ADF), Phillip Peron (PP), Im-Pesaran-Shin (IPS) and Breitung to test for the presence of unit root in the series (namely, AFRQ, AQ, DA, AC). Table 4.8 below presents the unit root test results.

Table 4.12: Unit Root Test

Variable	ADF		PP		IPS		Breitung	
	t-stats	Level	t-stats	Level	t-stats	Level	t-stats	Level
AFRQ	698.222	I(0)	520.89	I(0)	36.936	I(1)	1.5E-12	I(0)
AQ	430.913	I(0)	540.91	I(0)	7.752	I(0)	4.641	I(0)
DA	362.22	I(0)	291.62	I(0)	62.42	I(1)	-5.5E-13	I(0)
AC	110.16	I(0)	329.82	I(0)	183.57	I(0)	2.117	I(0)
AudQ	13.247	I(0)	13.759	I(0)	0.87	I(0)	2.696	I(0)
ProMgt	710.13	I(0)	409.91	I(0)	1.154	I(0)	20.34	I(0)
FOwner	474.11	I(0)	613.66	I(1)	1.697	I(0)	203.94	I(1)
ROA	483.96	I(0)	293.83	I(0)	83.47	I(0)	324.22	I(1)
FGROW	482.38	I(0)	74.48	I(1)	382.35	I(0)	-3.9E-11	I(0)
FinLev	490.200	I(0)	327.49	I(1)	392.27	I(1)	5.638	I(0)
LogFirm_SIZE	526.972	I(0)	213.69	I(1)	10.544	I(0)	16.926	I(1)
Ethics	545.63	I(0)	527.08	I(0)	1.309	I(0)	23.837	I(0)
TAX	549.40	I(0)	590.76	I(0)	29.04	I(1)	17.46	I(1)
EcoSize	528.753	I(0)	804.03	I(0)	0.4538	I(0)	2.039	I(0)
EcoGrowth	238.73	I(0)	36.75	I(0)	83.29	I(0)	48.43	I(0)

Source: Researchers' Estimation, 2020

Notes: In panel unit root tests, probabilities are computed assuming asymptotic normality. (a) tests the hypothesis of the presence of the individual unit root process, and (b) tests the hypothesis of no unit root in the common unit root process.

The unit root test results show that all the variables are stationary at levels, I(0)s or stationary at the first difference, I(1)s. Regarding the ADF techniques, all the variables are I(0)s. The results of the PP, IPS and Breitung also show that all the variables are either I(0)s or I(1)s. Based on the results of these alternative unit root tests, it can be concluded that series are produced by a stationary process, hence, series may be estimated by the GMM approach.

4.3.4 The relationship between AudQ and FRQ

This section presents the regression results of the relationship between AudQ and FRQ in SSA firms. The AudQ variable was measured by the size of the audit firm that audits the firms (Big4

and non-Big4). The FRQ was also measured based on three variables, comprising AC AQ and DA described in the previous chapter. The results are presented in Table 4.13 below.

Table 4.13: Regression Results of AudQ and FRQ

	Model 1	Model 2	Model 3	Model 4
Variable	AFRQ	AC.	AQ	DA
AFRQ _{it-1}	0.049** (2.274)	-	-	-
AC _{it-1}	-	0.075*** (3.249)	-	-
AQ _{it-1}	-	-	-0.088* (-1.767)	-
DA _{it-1}	-	-	-	0.120*** (5.113)
AudQ _{it}	-1.254 (1.207)	20.953 (0.863)	-0.711 (-1.396)	0.451 (1.406)
Ethics _{it}	0.152 (0.437)	8.766 (0.937)	-3.154*** (-2.362)	0.011 (0.369)
ProMgt _{it}	0.662** (1.986)	1.584 (-0.637)	-0.575*** (-3.946)	-0.035 (-0.537)
ROA _{it}	0.107*** (19.561)	0.265*** (2.642)	0.085*** (7.094)	0.009*** (4.271)
LEV _{it}	0.000 (-0.673)	12.258 (1.532)	-0.135 (-0.853)	-0.000*** (-28.739)
FirmGrow _{it}	3.70E-05*** (14.885)	-4.107*** (-2.896)	0.332*** (6.859)	7.86E-05*** (55.288)
FOwner _{it}	-0.270 (0.947)	39.323** (2.034)	-1.732 (-0.716)	-0.035 (-0.652)
Tax _{it-1}	0.023*** (2.663)	0.248* (1.674)	0.049*** (2.502)	0.005** (1.952)
FirmSize _{it}	4.14E-06*** (17.143)	1.90E-06 (0.399)	3.86E-06*** (12.996)	4.38E-07** (1.884)
EcoSize _{it}	3.08E-12*** (4.440)	-14.749*** (-2.284)	2.049*** (5.162)	-2.24E-13 (-1.233)
EcoGrow _{it}	0.018*** (14.885)	-4.107*** (-2.896)	-0.001 (-0.051)	0.005 (1.484)
Post-Estimation Tests				
AR2	0.919	0.584	0.500	0.864
Hansen J Stats	0.285	0.683	0.149	0.114
Number of Observ.	1155	1127	1172	1177
Number of Inst.	43	44	44	44
Cross-sections	297	297	297	297

Source: Researchers' Estimation, 2018

t-statistics in parenthesis; *** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Notes: Table 4.13 above shows the regression results of the relationship between AudQ and FRQ. The variables included the dependent variables of FRQ which was denoted by four variables, namely AFRQ (aggregate financial reporting quality index), AC, (Accounting Conservatism) AQ (Accrual Quality) and DA (discretionary accrual a proxy for earning management). The independent variables are AudQ (Auditor Quality proxied by Big4 dummy), ProMgt, BodEff, Ethics, (Corporate ethics), EcoGrowth, EcoSize (economic size, which is proxied by GDP), Tax (total tax rate), FOwner (Foreign Ownership, Firm Size (which is proxied by total assets), Firm growth (which is proxied by Sales growth rate), ROA (return on assets, representing profitability) and LEV (financial leverage).

Table 4.13 above presents the results of the relationship between AudQ and FRQ of firms in SSA. First, the results show that the coefficient of the lagged FRQ_{it-1} is positive and significant for Model 1. This suggests that the previous FRQ standards of firms in SSA is important in explaining their current financial reporting practices and their quality (FRQ). Model 1 predicted a positive relationship between AudQ and FRQ of firms in the SSA. Contrary to this prediction, the result shows that AudQ and FRQ have a negative but statistically insignificant relationship. This result suggests that improvement in the quality of auditors of firms in the SSA region does not affect the FRQ of these firms in any way. This indicates that the non-Big4 auditing firms in SSA may also be good and their level or standard of work is not significantly different from those of the Big4 firms. This suggests that the Big4 may be over-hyped, hence they do not significantly contribute to the quality of financial reporting in SSA. Finding such as this contradicts a similar study by Persakis and Iatridis (2016); Alzoubi (2016); Lopes (2018); Alzoubi (2018); ÖZCAN (2019) and Kamolsakulchai (2015) who found a positive and statistically significant relationship between AudQ and FRQ. It also contradicted Becker et al. (1998) who suggested that lower AudQ is associated with more "accounting flexibility. However, the results are consistent with studies such as Jeong and Rho (2004), Maijoor and Vanstraelen (2006), Yasar (2013) Habbash and Alghamdi (2016); Ajekwe and Ibiameke (2017); Abid et al. (2018); Yasser and Soliman (2018); Khanh and Nguyen (2018); Almarayeh et al. (2020) and Ismayil (2020) which indicates that there is no difference in audit quality between a big firm and a non-big firm and that the use of big firm auditors does not improve. Consequently, there is no significant relationship between audit firm size and FRQ.

Model 2 of the study shows that the coefficient of the lagged AC_{it} is positive and significant at 1%, suggesting that the previous level of AC of firms have a significant influence on the current degree of AC of firms in SSA. Regarding the coefficient of the lagged AQ_{it} , as indicated in Model 3, it is negative and statistically significant at 10% This implies that the previous levels of AQ of firms in the SSA have lesser influence in explaining their current AQ levels, all other things being equal. Model 3 also reports that the coefficient of the lagged DA_{it} is positive and significant at 1% This means that the previous DAs of firms in SSA (which is the amount of

asset or liability that is not mandatory, but is recorded in the system to boost earnings) can explain their current levels of DAs, all other things being equal. The results in Models 1 and 3 show that the AudQ coefficient was a negative and statistically insignificant effect on FRQ and AQ, respectively. For Models 2 and 4, the AudQ coefficient was, however, positive, but statistically insignificant effect on AC and DA, respectively. These results suggest that the quality of auditors used by firms in SSA do not significantly affect the FRQ, AC, AQ and DAs of these firms. The results from this study are inconsistent with studies such as Alzoubi (2016); Alzoubi (2018); Becker et al. (1998); Hajizadeh and Rahimi (2012); Iatridis (2012); Khalil and Ozkan (2016); Lopes (2018); Persakis and Iatridis (2016) and ÖZCAN (2019), which suggested that big-sized audit firms are effective in reducing financial statement manipulations more than non-big-sized audit firms. From the results, it can be agreed with the suggestion of Jordan et al. (2010) that while studies in the U.S. conclude that, relative to small audit firms, large audit firms more aggressively constrain their clients' attempts to manage earnings in general, research outside the U.S. has found no consistent FRQ differential based on auditor size. The findings of this study also confirm the results of other studies such as Abid et al. (2018); Ajekwe and Ibiamke (2017); Almarayeh et al. (2020); Habbash and Alghamdi (2016); Ismayil (2020); Jeong and Rho (2004); Khanh and Nguyen (2018); Maijoor and Vanstraelen (2006); Memis and Cetenak (2012); Yasar (2013) and Yasser and Soliman (2018) who suggest that there is no difference in FRQ between a big firm and a non-big firm and that a big firm does not restrain financial statement manipulations. This, therefore, indicates that the relationship between AudQ and FRQ may be contextually dependent. Since the U.S. is a highly regulated market, the relevance of big-sized firms in FRQ may be in the context of the regulatory regime. Therefore, without controlling for a regulatory regime or an IP regime, a big-sized audit firm does not affect.

Turning to the effects of the control variables, the results of the study showed that the coefficient for the firms' ethical behaviour depicted by Models 1, 2 and 4 was positive but statistically insignificant. This implies that the ethical behaviour exhibited by firms in SSA does not influence the quality of the FRQ, as well as the AC and DA of firms in SSA. However, the coefficient for the ethical behaviour of firms in SSA, as shown by Model 3, was negative and statistically significant at 1%, indicating that AQ is low in SSA countries where corporate ethics is high. This implies that in SSA, countries, where firms exhibit a high level of corporate ethics in interaction with public officials, politicians and other firms, the accounting accrual of the firm, will predict associated cash flow less accurately than SSA countries where firms

exhibit low corporate ethics. This is contrary to the prediction of the study that high corporate ethics of a firm should result in accrual that predicts the associated cash flow more accurately. The results are explained by the perceived high levels of public sector corruption in SSA, which create a difficult environment for a firm that exhibits a high level of corporate ethics in its dealings with the public sector. Such firms are not considered for government contracts and suffer delays in receivable turnover, which eventually affects profitability. Such firms will, therefore, have high tendencies to resort to the manipulation of accounting numbers to show profitability. As a result, the accrual of such firms will have a low associated cash flow predictability and hence low FRQ. These results contradict the findings of a study conducted by Choi and Pae (2011), which suggests that companies with a higher level of ethical commitment are engaged in less EM, report earnings more conservatively, and predict future cash flows more accurately than those with a lower level of ethical commitment.

The study found that in all four models, the coefficient for ROA (a proxy for the firms' level of profitability) is positive and statistically significant at 1%. This means that an increase in the firms' ROAs which is a proxy for the firms' profitability levels could bring about improvement in financial reporting and AQ of SSA firms. The result shows that an increase in ROAs leads to lower AC and high DAs (increased EM practices) of firms in SSA which is a poor accounting practice to these firms. In all, the result shows that profitable firms in SSA have growth opportunities. These firms may, therefore, disclose better information to show the reliability of their earnings and the projects that they presume to attain, this will spread their reputations and keep away from an underestimation of their actions (Fathi, 2013). The results found consistency with a previous study by Warrad (2017) who also suggests a significant influence of ROA on firms' Earnings Quality.

Regarding tax, the results of the study indicate that the coefficient is positive and statistically significant at 1% for Models 1 and 3. This suggests that as far as FRQ and AQ are concerned, increases in the level of tax on profits of firms in SSA result in improvement in their financial reporting and AQ practices. However, Models 2 and 4 reveal that the tax coefficient is positive and statistically significant at 10% and 5% respectively. This means that concerning the AC and DA of a firm in SSA, increases in the tax levels on these firms' profits do affect their AC and DA practices adversely. The results, therefore, demonstrate that FRQ increases when the tax rates of firms increase. This could be ascribed to the fact that firms in countries that experience high tax rates find creative ways to reduce their tax burdens. The firms achieve this

through a tax planning activity. Tax planning is a complex activity that requires experienced and knowledgeable employees. It, therefore, makes sense that firms improve their financial reporting and AQ when their tax burden increases. The results relative to AC and DA also indicate that as tax rates increase firm manipulate earnings to reduce the effect of corporate taxation by taking advantage of the flexibilities in financial reporting standards.

The result of the study also indicates that for Models 1, 3 and 4, the coefficient for the firms' growth in SSA is positive and statistically significant at 1%. This means that increases in the value growth of firms in SSA result in improvements in the FRQ and quality of accrual of these firms. The result, however, shows that increases in the value growth of firms in SSA result in EM. Therefore, high growth firm practice EM than low growth firm even though FRQ in general increase as firm growth increase. Directors are likely to manipulate earnings through DA when firms are experiencing high growth to improve reported firms value. This follows the Agency Theory that everyone in an organisation has incentives to act for personal gain (JM, 1976). Another reason could be that the growth of SSA firms contribute to their efforts to improve on their FRQ since they can hire the services of credible and professional auditors to vouch for the quality of their financial reports. Broadly, this finding is on the same wavelength as the previous study that firm growth has a significant positive impact on earnings quality (Hassan & Farouk, 2014). Model 2, however, shows that the coefficient of firm growth rate in SSA is negative but statistically significant at 1%, suggesting that as the rate of growth of firms in SSA improves, they become less interested in adhering to measures that would enable them to prepare accounts with caution and high degrees of verification.

For the coefficient of ProMgt, Model 1 shows that it is positive and statistically significant at 5%, which means that firms that operate in SSA countries with high reliance on ProMgt will have good FRQ all other things being equal. The results suggest that ProMgt significantly improves FRQ. This result is plausible because financial reporting is a product of systems and controls put in place by management. Therefore, if a firm has professional and experienced management, it would be able to develop a good internal control system and procedures to guide its financial reporting activities. This will eventually translate into quality financial reporting. In addition, ProMgt may have the experience of supervising financial reporting activities of different firms for many years, hence they can draw on their experience to improve the financial reporting of firms. This is consistent with the views of Demerijian et al. (2012); Baik et al. (2020); and Baik et al. (2018) who maintain that countries and firms with ProMgt will have improved the FRQ regime because of the experience they bring to the firms. Despite

the positive effect of reliance on ProMgt on FRQ as shown in Model 1, the study results show that in Model 3, the coefficient for ProMgt is negative and statistically significant at 1% This suggests that firms operating in SSA countries with high reliance on ProMgt have lower AQ that weakly predict associated operational cash flow and vice versa. This implies that in the absence of laws and regulations, professional managers manipulate accounting profit in countries that rely on ProMgt even though not to the extent of negatively affecting overall FRQ. This suggests that when firms in SSA reduce their reliance on the services of professional managers it makes them able to improve on the quality of their financial reporting as far as AQ is concerned. The possible reason is that professional managers are craftier in taking advantage of the flexibility in reporting standard to manipulate profit without marring the general quality of financial reporting than a non-professional manager. For Models 2 and 4, the coefficient for the ProMgt is statistically insignificant meaning it does not have any impact on the firms' AC and their DAs.

In addition, the coefficient for the firms' sizes is positive and statistically significant at 1% for all the Models except for Model 3 where the coefficient for the firms' sizes proved to be statistically insignificant. This means that an increase in the sizes of firms in SSA contributes to enhancing the level of their FRQ. The reason could be that as firms' in SSA increase in sizes, they become interested in relying on qualified professionals and auditors to evaluate their financial reports to make them more credible. The literature, however, documents that firms' sizes have a negative and significant relationship with their FRQ (Karami & Akhagar, 2014). Relating to AC and DA, the results show that an increase in the sizes of firms in SSA results in poor AC and high earnings management. This implies that as a firm increased in size prudent financial reporting practice reduces and DA increase (earnings manipulation increases). Large size firms are, therefore, interested in managing earnings than small size firms in SSA. This is because a large-size firm will have the ability to engage professional managers that can manage earnings within the required FRQ framework. The quest to sustain growth provide such motivation for the high DA and low AC practices in firms from SSA.

Furthermore, the results show that the LEV coefficient is positive but statistically insignificant in Models 1 and 2. The results also show that in Model 3, the LEV coefficient is negative and statistically insignificant. This suggests that the debt levels of firms in SSA do not influence the FRQ, AC and AQ of these firms. However, for Model 4, the LEV coefficient is negative, but statistically significant at 1%, implying that firms with high debt to equity ratio will reduce EM and have lower DAs. This result suggests that an increase in a firm's debt profile will lead

to an increase in its FRQ. This result implies that a firm with a higher proportion of debt would have high FRQ than a firm with lower debt to equity ratio. This result may be that creditors may demand certain reporting practices from the firms. In addition, since creditors want to ensure that their interest and principles will be paid, they may want the firms to provide appropriate, accurate and relevant financial information that is free from errors. As a result, they make take interest in the reporting practices of the firm, which will result in quality financial reporting. Consequently, firms will therefore attempt to keep a certainly maintain leverage ratio by recognising unrealised revenue in the current accounting period. This will reduce creditors suspicion on the financial stability of the firms (Debt Covenant Hypothesis). This according to the Positive Accounting Theory will lead to lower FRQ. This finding confirms Ujah et al. (2014)'s finding that financial leverage is negatively associated with DA, suggesting that lowly leveraged firms manage their earnings more than highly leverage firm. As such, the evidence on the impact of leverage on EM supports the control hypothesis by Jensen (1986). The hypothesis suggests that the opportunistic behaviour of managers is reduced by debt creation. Therefore, highly leveraged positions may restrict its manager's ability to manage earnings.

Lastly, the coefficients for economic sizes (EcoSize) and their growth rates (EcoGrow) for countries of the selected firms from SSA for this study show that in Models 1, 2 and 3, the EcoSize is positive and significant at 1% Model 4, however, shows that the coefficient of the EcoSize is statistically insignificant. Similarly, for the EcoGrowth (ΔGDP), its coefficient for Model 1 shows that it is positive and statistically significant at 1%, implying that as the rate of growth of the sizes of these SSA countries changes, firms in these countries can put measures in place to improve on their FRQ levels. The possible reason could be that as the economies of these countries expand and more investors (from both local and foreign) decide to invest in these countries, the understanding of investors is that firms in these countries have reliable and credible financial reports, as a result, for firms in SSA to attract some of these potential investors, they make efforts to improve on the quality of their FRQ. The EcoGrowth coefficient for Model 2 is, however, negative, but also significant at 1 %, signifying that as firms in SSA try to improve on their value growth, even when their economies have slowed down, they continue to adhere to high AC practices to make their accounts more credible and reliable to attract potential investor and customers.

Regarding the robustness and validity of the results, the p -value of the AR2 (p -value = 0.919) results for Model 1 is insignificant, which suggests the absence of serial correlation in the

models. Moreover, the results show that the Hansen J test is insignificant (p -value = 0.285), implying that the instruments do not suffer from misspecification.

4.4 Investor protection (IP), AudQ and FRQ in SSA

This section achieves two objectives. First, it presents the results and analyses of the relationship between IP and FRQ in SSA. The section further investigates the moderating role of IP in the interaction between AudQ and FRQ. The IP was measured by three variables, comprising protection of MinInt, the LRI and RegSE. These variables were obtained from the WEF database. The FRQ is measured based on four variables, comprising AC, AQ, DA and aggregate AFRQ of firms.

4.4.1 Descriptive statistics

Table 4.14 below reports the summary statistics of the relationship between IP regime and FRQ in SSA.

Table 4.14: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
AFRQ	2923	1.1210	0.1111	0.6710	3.2112
AC	3154	0.8018	0.1091	0.1625	1.9206
AQ	3066	0.6230	0.2522	0.0751	1.4014
DA	3267	0.4902	0.438	0.0926	0.9877
IP	3,578	6.489	1.347609	4.00	8.00
AudQ	3597	0.791	0.406	0.000	1.000
MinInt	3251	4.965	0.8283906	3.40	6.22
RegSE	3251	5.162	0.9708464	3.52	6.67
LRI	3251	7.166	1.794	3.000	10.000
CFO	2892	4.049	4.622	-11.978	13.415
ProMgt	3578	5.005	0.545	3.710	5.830
LagLoss	3320	0.175	0.452	0.000	11.000
ROA	3302	6.369	24.324	-56.9743	460.432
LEV	3270	38.7223	47.5396	0.779	267.735
FirmGrow	3273	39.113	12.037	-10.03	47.389
FOwn	3578	4.9281	0.4693	3.23	6.25
Tax	1635	32.762	5.381	14.500	49.600
Firmsize	3341	35007.64	308311.9	105.579	1.66e+07
EcoSize	3597	2.24e+11	1.71e+11	4.42e+09	5.68e+11
EcoGrow	3270	3.873	4.382	-17.669	19.675

Source: Researchers' Estimation

Notes: Table 4.14 above shows the regression results of the relationship between IP and FRQ. The following variables were employed for this study. The dependent variables were AFRQ (aggregate FRQ index), AC (Accounting Conservatism), AQ (Accrual Quality) and DA (Discretionary Accrual). The independent variables of IP are represented by MinInt, LRI, RegSE and IP (Investor Protection Index). Other independent variables were reliance on ProMgt, EcoGrowth, EcoSize (Economic size, which is

proxied by GDP), Tax (total tax rate), FOwn (Foreign Ownership), CFO (cash flow from operation volatility) LagLoss (loss before extraordinary items), ROA (firms' profitability), LEV (financial leverage), FirmGrowth (firms' growth), Firmsize (firm's size)

The study found the minimum and maximum values of 0.6710 and 3.2112 respectively with a mean score of 1.1210 for the FRQI of firms in the SSA region. For the protection of the MinInt variable, it was found that it ranged between 3.40 and 6.22 as the minimum and maximum values with a mean score of 4.965, suggesting that the interest of the minority shareholders of firms in SSA countries are well protected since the benchmark criteria for excellent protection of minority interest is 7. The regulation of the stock exchange (RegSE) variable showed a minimum and maximum value of 3.52 and 6.67. It also had a mean score of 5.162. The implication of this is that the strength of regulators to ensure the stability of the financial market is strong enough in the SSA following the high mean score of 5.162. The table again shows that the LRI has minimum and maximum values of 3.000 and 10.000 respectively with a mean score of 7.166, implying that there are strong legal laws and enforcement system for investors and creditors in the SSA. The IP variable was found in this study to range between 4.00 to 8.00 as the minimum and maximum values with a mean score of 6.489 suggesting that there is generally strong and strict laws, regulation and enforcement system in SSA indicating a strong IP regime. The average AudQ is 0.791, suggesting the majority of the firms engaged the services of the Big4 auditing firms. This indicates quality audit practices among the firms.

The study found the CFO describing the cash flow from operation volatility to have minimum and maximum values of -11.978 and 13.415, respectively, with a mean score of 4.049. Regarding the ProMgt, the study reports a mean score of 5.005 with 3.710 and 5.830 as the minimum and maximum values. Given the high score of the ProMgt variable, it suggests that firms in SSA countries do largely rely on professional for management position rather than relatives and friends without regard to merit and qualification. The loss before extraordinary items (LagLoss) variable was also found to have minimum and maximum values of 0.000 and 11.000 with an average of 0.175. For the profitability levels of firms in SSA, the study found the ROA variable which proxies for the firms' profitability to have minimum and maximum values of 460.432 and -56.97. However, the mean score was 6.369, indicating that the firms recorded a marginal return on their assets over the ten years.

From the results of the study, the financial leverage (LEV) positions of firms in the SSA region show a relatively low debt level with minimum and maximum values of 0,779% and 267,73% with a mean score of 38,72% Regarding the firms' growth (FirmGrowth) variable, the mean

value is 39,113% the minimum value is -10,03%, while the maximum value is 47,389%, indicating that most of the firms broadly experienced growth. Concerning the foreign ownership (FOwner) in these firms, the study found that there were relatively high levels of foreign investors in firms in SSA. This is evidenced by the minimum and maximum values of 3.23 and 6.25 respectively with a mean score of 4.9281. Moreover, regarding the percentage of tax, the firms pay on their profits, the study found that an average firm in SSA pays around 32,76% on their profit as tax with a minimum and maximum values of 14,5% and 49,6%, respectively. The implication is that firms in SSA pay a relatively high amount of tax on their profits. The firms of SSA are of various sizes. The average size of the firm is \$35 007 640.

Furthermore, the sizes (EcoSize) of the various SSA economies where these firms are located are relatively the same. The average size of these economies in terms of gross domestic product (GDP) is \$22.4 billion whereas the minimum and the maximum values for these economies range between \$4.42 billion and \$568.0 billion. Lastly, the study found that these economies experience different levels of growth ranging from a minimum of -17.669% to a maximum of 19.675% with an average of 3.873%, suggesting that these countries in SSA where these firms operated largely did not show signs of high growth as evidenced by the low average growth rate of 3,873%

4.4.2 Correlation Analysis

Table 4.15 below presents the correlation matrix of the relationship between IP regime and FRQ in SSA. The correlations are included to check for multicollinearity. A correlation above 0.7 between independent variables is an indication of the presence of multicollinearity (Marcoulides & RayKov, 2019). From Table 4.15, the highest correlation was 0.731, which is between CFO and Firm_size. However, for a robustness check, the VIF was also conducted. The results of the VIF test showed that all the variables were far from being correlated. the estimation shows that the VIF of all variables was less than the threshold of ten which was suggested in the literature (Salmeron et al., 2018). These outcomes suggest that all variables used in this analysis did not suffer from multicollinearity. All the values were below 0.7, which proves the absence of multicollinearity among the independent variables.

It can be observed from Table 4.15 below that the FOwner variable had a positive relationship with ProMgt. The tax variable had a negative relationship with the ProMgt and the FOwner variables. The EcoSize (GDP) variable is also positively related with ProMgt and FOwners but it is negatively associated with the Tax variable. The results show that the economic growth

(Δ GDP) index is negatively related to ProMgt and the EcoSize, but positively related to the Tax and FOwner variables. For the firms' ROA variable, it was positively related to all the other variables except the Tax, EcoSize and the EcoGrowth variables. The table also reports the LEV variable which was negatively related with all the other explanatory variables except the Tax index which is associated with the Financial leverage positively. Regarding the firm size variable, it had a negative relationship with the other independent variables apart from the Tax, ROA and the LEV indices. Further, concerning the firms' growth index, it correlates negatively with the FOwner, Tax, EcoSize, EcoGrowth, LEV and the FirmSize variables, however, the LEV variable is positively related to ProMgt and ROA. The CFO variable also has a negative relationship with all the independent variables except the ROA, Firm_size and the Tax variables. Finally, the correlation table provides evidence of a positive association between the loss before extraordinary items (LAGLoss) and other variables such as Tax, EcoGrowth and LEV. The LAGLoss, however, correlates with ProMgt, FOwner, FirmSize, EcoSize, ROA, FirmGrowth and CFO negatively.

Table 4.15: Correlation Matrix

Variables	ProMgt	IP	RegSE	LRI	MinInt	AudQ	FOwn	TAX	GDP	EcoGr	ROA	LEV	Firm Size	Firm Grow	CFO	Lag Loss
ProMgt	1.00															
IP	0.28***	1.00														
RegSE	0.14**	0.12***	1.00													
LRI	0.02***	0.04***	0.06***	1.00												
MinInt	-0.11***	-0.02**	-0.15**	0.23**	1.00											
AudQ	0.183**	0.028**	0.283	0.378*	0.107**	1.00										
FOwner	0.35***	0.08***	-0.07**	-0.14**	-0.47**	0.18**	1.00									
TAX	-0.21***	0.16***	0.19***	0.03**	0.11**	-0.19	-0.43**	1.00								
GDP	0.38***	-0.35***	0.24***	-0.36**	0.19**	0.279**	0.41**	-0.08	1.00							
EcoGrowth	-0.25***	0.09***	0.21**	0.13**	0.23**	0.068**	0.03**	0.27**	-0.22***	1.00						
ROA	0.06***	0.54***	0.21***	-0.02**	0.12**	0.372**	0.07**	-0.05	-0.02***	-0.01	1.00					
LEV	-0.02***	-0.19***	0.17***	-0.14	-0.21**	0.103**	-0.05**	0.01**	-0.03*	-0.01	-0.02*	1.00				
FirmSize	-0.07***	-0.07**	0.04***	0.09**	-0.15	0.217	-0.09**	0.14**	-0.02***	-0.09	0.03*	0.003*	1.00			
FirmGrowth	0.02***	0.31***	0.09***	0.31**	0.16*	-0.18**	-0.12**	-0.08**	-0.04***	-0.06**	0.25**	-0.01***	-0.01**	1.00		
CFO	-0.15***	0.09***	0.17***	-0.21	0.33**	-0.139*	-0.09**	0.15**	-0.01	-0.02**	0.08**	-0.004	0.73*	-0.05**	1.00	
LAGLoss	-0.047	0.261***	-0.18**	0.16**	0.05**	0.292**	-0.13**	0.02	-0.05***	0.03	-0.32**	0.047***	-0.06**	-0.01**	-0.01**	1.00

Source: Researchers' Estimation

Notes: * Significant at the 10% level, ** Significant at the 5% level and *** Significant at the 1% level.

4.4.3 Panel Unit Root Test

Table 4.16 presents the panel unit root test results of the variables used for the estimation. Four different unit root testing techniques, comprising Augmented Dickey-Fuller (ADF), Phillip Peron (PP), Im-Pesaran-Shin (IPS) and Breitung were employed.

Table 4.16: Panel Unit Root Test

Variable	ADF		PP		IPS		Breitung	
	t-stats	Level	t-stats	Level	t-stats	Level	t-stats	Level
AFRQ	698.222	I(0)	520.89	I(0)	36.936	I(1)	1.5E-12	I(0)
AQ	430.913	I(0)	540.91	I(0)	7.752	I(0)	4.641	I(0)
DA	362.22	I(0)	291.62	I(0)	62.42	I(1)	-5.5E-13	I(0)
AC	110.16	I(0)	329.82	I(0)	183.57	I(0)	2.117	I(0)
IP	83.62	I(0)	345.23	I(0)	74.29	I(0)	283.82	I(0)
MinInt	192.02	I(1)	132.97	I(1)	315.87	I(1)	189.36	I(0)
RegSE	82.73	I(0)	942.02	I(1)	594.92	I(0)	463.82	I(0)
LRI	937.19	I(0)	382.17	I(1)	206.17	I(1)	598.14	I(1)
CFO	283.84	I(1)	227.28	I(0)	32.34	I(1)	71.61	I(0)
FOwner	474.11	I(0)	613.66	I(1)	1.697	I(0)	203.94	I(1)
Tax	549.40	I(0)	590.76	I(0)	29.04	I(1)	17.46	I(1)
ProMgt	710.13	I(0)	409.91	I(0)	1.154	I(0)	20.34	I(0)
EcoSize	528.753	I(0)	804.03	I(0)	0.4538	I(0)	2.039	I(0)
EcoGrowth	392.04	I(0)	208.93	I(0)	93.29	I(1)	327.06	I(0)
ROA	483.96	I(0)	293.83	I(0)	83.47	I(0)	324.22	I(1)
LEV	490.200	I(0)	327.49	I(1)	392.27	I(1)	5.638	I(0)
FirmSize	526.972	I(0)	213.69	I(1)	10.544	I(0)	16.926	I(1)
FGROW	482.38	I(0)	74.48	I(1)	382.35	I(0)	-3.9E-11	I(0)
LAGLoss	437.71	I(0)	183.38	I(0)	214.53	I(1)	63.28	I(0)
AudQ	13.247	I(0)	13.759	I(0)	0.87	I(0)	2.696	I(0)

Source: Researchers' Estimation

Notes: In panel unit root tests, probabilities are computed assuming asymptotic normality. (a) tests the hypothesis of the presence of the individual unit root process, and (b) tests the hypothesis of no unit root in the common unit root process.

The unit root test results of the variables used for the estimation are presented in Table 4.16 above. The test is premised on the null hypothesis that there is the presence of both levels and the first difference. The results presented in Table 4.16 above demonstrate that all the variables are stationary at levels, I(0)s or stationary and the first difference, I(1)s. Concerning the ADF

techniques, all the variables are I(0)s with regards to the PP, IPS and Breitung results, all the variables are either I(0)s or I(1)s. The different techniques were necessary to validate the results of the various techniques. Based on the consistency of the results of the various methods, the study rejects the null hypothesis of the presence of a unit root at both levels and the first difference. This indicates that none of the variables is stationary at the second difference. This suggests that the regression analysis can incorporate both I(0) and I(1) variables, suggesting that the series are produced at the stationary process. In addition, the stationarity of the results indicates that a Sys-GMM approach is suitable for the estimation of the parameters in the model.

4.4.4 Impact of MinInt, RegSE and LRI on AC of SSA firms

In this section, the regression results of the relationship between three discrete IP variables such as the protection of minority shareholder interest (MinInt), the legal right index (LRI) and regulation of stock exchange (RegSE) and the AC in SSA are presented. All these variables have previously been explained in Chapters 2 and 3. The results are presented in Table 4.17 below.

Table 4.17: Regression Results on the impact of MinInt, RegSE and LRI on AC

Accounting Conservatism	Model 1	Model 2	Model 3
Variables	AC	AC	AC
AC_{it-1}	-0.024*** (-8.842)	-0.025*** (-9.065)	-0.018*** (-6.529)
$MinInt_{it}$	-20.772*** (-1.979)	-	-
$RegSE_{it}$	-	-13.668* (-1.789)	-
LRI_{it}	-	-	6.020*** (10.338)
$EcoSize_{it}$	-0.095 (-0.641)	-0.158 (-0.980)	10.338*** (-6.723)
$EcoGrow_{it}$	-10.005*** (-2.265)	-7.293* (-1.650)	-84.303*** (-12.657)
TAX_{it-1}	-0.579*** (-4.179)	-0.591*** (-4.297)	-2.707*** (-10.167)
$ProMgt_{it}$	-8.359 (-0.671)	-8.489 (-0.712)	-125.222*** (-10.217)
$FirmSize_{it}$	-0.001*** (-2.354)	-0.001*** (-2.231)	4.80E-05 (0.819)
ROA_{it}	0.255*** (3.234)	0.264*** (3.419)	0.205 (1.321)
LEV_{it}	0.956	1.354	-1.118

	(0.341)	(0.478)	(-0.266)
FirmGrow _{it}	-0.419***	-0.400***	-0.551***
	(-2.535)	(-2.551)	(-2.699)
LAGLoss _{it}	2.247	2.332	2.346
	(1.024)	(1.029)	(0.794)
CFO _{it}	-5.843***	-6.020***	-6.872***
	(-11.584)	(-11.849)	(-5.716)
FOwner _{it}	13.975***	12.984***	94.798***
	(3.531)	(3.168)	(13.942)
Post-Estimation Tests			
AR 2	0.607	0.529	0.204
Hansen J-Stats	0.583	0.655	0.625
Number of Observations	1119	1119	1119
Number of Instruments	43	43	43
Cross-sections	314	314	314

Source: Researchers' Estimation

t-statistics in parenthesis; *** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Table 4.17 above shows the impact of MinInt, RegSE and the LRI on the accounting conservatism of SSA firms. The dependent variable was AC (accounting conservatism). The main independent variables were MinInt_{it}, LRI_{it} and RegSE_{it}. Other independent variables include EcoGrow, ProMgt, EcoSize (economic size, which is proxied by GDP), Tax, (Total Tax rate), ROA (profitability proxied by return on assets), LEV (financial leverage), FOwn (Foreign Ownership, CFO (cash flow from operation volatility) and Lagloss (loss before extraordinary items).

Table 4.17 above presents results of the relationship between IP indicators such as the protection of MinInt, RegSE and the LRI on AC (which describes the view that firms are expected to prepare accounts with caution and high degrees of verification) of firms in SSA. Based on the measure used for AC (BTM value ratio), a higher value is an indication of aggressive accounting (weak AC) and a lower value is an indication of high AC practice. This is because there is a negative association between a BTM value ratio and AC (Beaver & Ryan, 2005). The results of the study show that the lagged coefficient of AC variable (AC_{it-1}) is negative and statistically significant for Models 1 to 3, indicating that the previous year's AC levels of SSA firms are significant in explaining the present level of AC practice of firms in the SSA.

For Model 1, the study hypothesised that in SSA countries where protection of the minority interest is high and strong, firms will be more adopt conservative accounting policies and estimates. This, therefore, suggests that a strong and strict regime of protection of minority interest will improve firm AC in financial reporting. Confirming this hypothesis, the results of the study show that the coefficient of the protection of minority interests is negative but statistically significant at 1% This means that as the protection of the minority interest in SSA

countries is enhanced, firms adopt more conservative accounting policies and estimates than countries with weak protection of minority interest all other things being equal. Therefore, strong protection of minority shareholder interest tends to influence a firm to adopt conservative accounting policies. This is because, in countries where minority interest protection is strong, there is high monitoring of corporate accounting practices. This finding supports the assertion of Dargenidou et al. (2007) position that stronger protection of minority shareholders' interest either ensures close monitoring or through legal IP system, asymmetrical information is mitigated in the financial reporting processes by the timely recognition of losses.

Similarly, in Model 2, the study hypothesised that there is a negative relationship between the RegSE in SSA countries and the AC variable in these countries. Consistent with this hypothesis, the results of the study show that the coefficient of the RegSE_{it} variable is negative and statistically significant at 10%, suggesting companies in a strongly regulated stock market use more conservative accounting policies and estimates than companies in a weakly regulated stock market. Therefore, the strength of regulation of the stock market in SSA influences firm accounting policies on estimate and recognition of gains and losses under the condition of uncertainty. These findings are consistent with Houque et al. (2012), who suggested that accounting practices are influenced by country-level macro settings. This finding is also consistent with Watts (2003) who positions that government's regulation on firms' financial reporting system instigates conservatism accounting practice. This is because regulators are more often faced with criticism when firms overstate net assets than when firms understate net assets.

The study hypothesised in Model 3 that the LRI of SSA countries has a negative relationship with the AC variable of firms from SSA. Therefore, as the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders improves in a country firms will adopt more conservative accounting policies. Inconsistent with this hypothesis, the results of the study show that the coefficient of LRI_{it} is positive and statistically significant at 1% This implied that as the LRI_{it} of countries in SSA improved, the firms in these countries adopted more aggressive accounting policies and were less restrained in estimates and recognition of gains and losses under conditions of uncertainty. The findings show that firms in SSA countries with strong legal right index exhibit timelier recognition of economic gains in accounting earnings than recognition of losses. Therefore, the strength of the legal right index in SSA weakens AC instead of fostering it. This finding conflicts with that of Bushman and Piotroski (2006) and Ball et al. (2000). Ball et al. (2003); Holthausen (2003), Huijgen and Lubberink

(2003), and Lubberink and Huijgen (2006) found that firms in countries with strong judicial systems reflected bad news in earnings faster than firms in countries with weak judicial systems after controlling for legal origin. This finding is possible to the extent as a countries collateral and bankruptcy laws protect the right of borrowers and lenders strongly, there will be increased tendencies of firms to take advantages of the flexibilities in accounting standards to manipulate financial report to show encouraging performance to guard against attachment of properties by creditors and avoid being liquidated. Consequently, firms will be less conservative in income recognition under the condition of uncertainties.

On the effects of the control variables on AC, the economic size ($EcoSize_{it}$) coefficients for Models 1 and 2 are statistically insignificant, suggesting that the previous year's GDP do not have any effect in explaining the current levels of firms' AC policies in SSA. However, in Model 3, the previous year's coefficient of $EcoSize_{it}$ is positive and statistically significant at 1%, which is an indication of its importance in explaining the current AC practices of firms in SSA. This shows that a country with a strong legal right index and bigger GDP would have less conservative accounting policies and more aggressive in income and expenditure recognition. This may because a firm may want to ward off creditors control by manipulating earnings. This finding conflict with a study by As'ad (2019) who documented countries with large economic size and at the same time having policies that protect the interest of minority shareholders enjoy FRQ.

The results of the study depict that the coefficient of economic growth ($EcoGrowth_{it}$) is negative and significant in all three models. This implies that companies in a high growth economy use more conservative accounting policies than companies in low growth economy in SSA. The possible reason is that countries with higher economic growth may have good systems, regulations and laws that may prevent firms from engaging in aggressive income recognition to misreport earnings. This confirms the finding by As'ad (2019) who reports that countries that experience high economic growth and at the same time having policies and laws that protect the interest of minority shareholders, investors and creditors enjoy quality financial reporting.

For the tax coefficient, all three models showed that it was negative and statistically significant at 1% This means companies operating in SSA countries with high tax rate adopt more conservative accounting policies than firm in SSA countries with the low corporate tax rate. This is not surprising because in countries where tax rates are high firm delay recognition of

income and timely recognise expense to reduce taxable earnings to avoid payment of taxes. Consequently, there is a more conservative accounting practice in countries with high tax rate than in countries with low tax rates.

Regarding $ProMgt_{it}$, the coefficient is negative and statistically insignificant for Models 1 and 2. However, for Model 3, it is also negative but statistically significant at 1%, which means that in SSA countries with high firms' reliance on professionals in senior management ($ProMgt_{it}$), firms improve verification and are more prudent in recognising revenue and expenditure and for that matter adopt more conservatism accounting policies. These findings suggest that although $MgtQ$ may be irrelevant in AC when a country has strong rules and enforcement system to protect minority shareholder interest and to regulate stock exchange, $ProMgt$ will adopt higher AC in a country with a strong legal right index. The possible reason may be that for SSA firms to remain credible to their creditors and would-be investors in a country with a strong legal right index, they must post credible earning and professional managers for fear of litigation and punishment will enhance faithfulness of accounting number to ensure credible earnings figures. Similarly, for $FirmSize$ coefficient, Models 1 and 2 show that it is negative and statistically significant at 1%, suggesting that an increase in the sizes of firms in SSA contributes to improving their AC practices, all other things being equal. This implies that large firms adopt more conservative accounting policies than smaller firms. This finding appears to differ from the view of Klai et al. (2011) that firm size is associated with a poor quality of financial information since the firm size increases the firm's operating risk which leads managers to exercise accounting discretion to mislead the investors.

The result of the study again shows that the ROAs coefficient denoting the firms' level of profitability is positive and statistically significant for Models 1 and 2, but insignificant in Model 3. This means that as the profit levels of firms in the SSA increase firm adopt less conservative accounting policies and estimates, all other factors being equal. This is because the quest to maintain firm profitability levels will lead to aggressive income recognition. The results of this study are inconsistent with research conducted by Ika and Fachrurrozie (2015) that profitability does not affect AC. Further, for the firms' leverage (LEV) and $LagLoss$ coefficients, all three models depict that they are positive but insignificant. The implication is that the leverage and loss of firms do not affect the firms' AC practices in any way.

In addition, the coefficient of foreign ownership ($FOwner_{it}$) also revealed that it is positive and statistically significant at 1%, which goes to say that as the percentage of foreign investors in

firms in SSA increase, it contributes to aggressive accounting policies and lower verification requirement for recognition of gains and losses. This implies that in a jurisdiction where foreign ownership is high firm apply less conservative accounting policies and estimates than in a jurisdiction with less foreign ownership. This finding supports the suggestion of Le et al., (2017) that foreign ownership is associated with less conservative accounting practices. However, this finding conflicts with the findings of An (2015), that foreign ownership is associated with more conservative accounting practices. Lastly, the results of the study show that the coefficient of CFO is negative and statistically significant in all three models, implying that an increase in firm cash flow would result in the application of more conservative accounting policies and estimates.

Concerning the robustness and validity of the results, the probability of the AR2 results is insignificant for all three models, that is (Model 1 = p -value = 0.607, Model 2 = 0.529, Model 3 = 0.204) which suggest the absence of serial correlation. Additionally, the results show that the Hansen J test is also insignificant for all three models, that is (Model 1 = p -value = 0.583, Model 2 = 0.655, Model 3 = 0.625), implying that the instruments do not suffer from misspecification.

4.4.5 Impact of MinInt, RegSE, and LRI on AQ of SSA firms

Similar to section 4.4.4 above, in this section, the regression results of the relationship between IP variables such as protection of minority shareholders interest (MinInt), legal right index (LRI) and stock exchange regulations (RegSE) and the AQ component of the FRQ of SSA firms are presented. All these variables have previously been explained in Chapters 2 and 3. The results are presented in Table 4.18 below.

Table 4.18: Regression Results on the impact of MinInt, RegSE and LRI on AQ

AQ Variables	Model 1 AQ	Model 2 AQ	Model 3 AQ
AQ _{it-1}	-0.037 (-0.528)	-0.001 (-0.014)	-0.002 (-0.026)
M _{inIntit}	-0.587 (-1.303)	-	-
RegSE _{it}	-	-0.215 (-0.585)	-
LRI _{it}	-	-	-0.075 (-0.166)
EcoSize _{it}	0.286***	0.034*	0.223***

	(2.499)	(1.819)	(2.474)
	1.008***	1.009***	1.225***
EcoGrow _{it}	(2.162)	(2.0671)	(2.487)
	0.015	0.016	0.014
Tax _{it}	(0.602)	(0.694)	(0.536)
	-0.098	-0.328	-0.284
ProMgt _{it}	(-0.489)	(-1.239)	(-1.221)
	2.149***	2.072***	2.066***
FirmSize _{it}	(6.489)	(6.447)	(5.699)
	0.059***	0.056***	0.054***
ROA _{it}	(4.832)	(3.735)	(3.175)
	1.695***	1.598***	1.723***
LEV _{it}	(2.659)	(3.045)	(3.243)
	0.228***	0.268***	0.271***
FirmGrow _{it}	(3.832)	(4.699)	(4.843)
	-0.330***	-0.335***	-0.333***
LAGLoss _{it}	(-3.477)	(-3.242)	(-2.386)
	0.083***	0.110***	0.094***
LCFO _{it}	(2.634)	(3.709)	(2.968)
	-0.057	0.574	0.577
FOwner _{it}	(-0.073)	(0.786)	(0.859)

Post-Estimation Test

AR 2	0.655	0.676	0.656
Hansen J-Stats	0.942	0.813	0.852
Number of Observations	1172	1172	1172
Number of Instruments	43	43	43
Cross-sections	307	307	307

Source: Researchers' Estimation

t-statistics in parenthesis; *** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Notes: Table 4.18 above shows the impact of MinInt, RegSE and the LRI on the AQ of SSA firms. The main independent variables were MinInt_{it}, LRI_{it} and RegSE_{it}. Other independent variables included EcoGrowth, ProMgt, EcoSize (economic size, which is proxied by GDP), Tax, (Total Tax rate), ROA (profitability proxied by return on assets), LEV (financial leverage), FOwn (Foreign Ownership, CFO (cash flow from operation volatility) and Lagloss (loss before extraordinary items).

From Table 4.18 above, the lagged coefficient of the AQ_{it-1} variable was negative and statistically insignificant in all three models, an indication that the previous year's AQ levels of firms in SSA are not important to explain the current quality of their AQ positions. The study hypothesised in Models 1 to 3 that there is a positive relationship between the various IP indicators of SSA countries such as the protection of MinInt, RegSE, the LRI and the AQ of firms in SSA. Consistent with the above hypotheses, the results of the study show that the coefficients of the protection of the MinInt, RegSE, LRI variables are positive, however, statistically, they are insignificant in all the three models. This suggests that the protection of

the MinInt, RegSE, LRI variables has no impact on the AQ levels of SSA firms, all other things being equal. This implies that the level of AQ of firms is determined by factors other than the level of the IP regime of the jurisdiction.

Turning to the effect of the control variables on the AQ of firms in SSA, the results of the study show that both the coefficients of GDP and change in GDP are positive and significant at 1% in all three models, showing that an increase in the size of the economies of these countries and their changes over time will contribute to improving the AQ of firms in SSA. The possible reason could be that bigger economies and those with higher growth may have robust and effective monitoring mechanism and systems to help in the improvement in the reporting practices of firms. However, the result of the study shows that the coefficients of Tax and ProMgt are positive but statistically insignificant in all three models, which means that they have no influence on the AQ of firms in SSA, all other things being equal. Similarly, the coefficient of FOwner in Model 1 was negative, but statistically insignificant, while for Model 2 and 3, they were positive, but also statistically insignificant, which implies that FOwner does not affect the AQ of firms in SSA.

The results indicated that the coefficient of firm size was positive and statistically significant at 1%, showing that as the sizes of firms in SSA increase, it contributes to enhancing the quality of their accruals. The reason may be that larger firms may have the resources to engage the services of experienced and qualified accounting professionals to manage their financial reporting activities. In addition, larger firms may be exposed to public and regulatory scrutiny, hence they may not have the chance to engage in any malfeasance or poor accounting practice. However, this finding is contrary to what the literature highlights that firm size has a significant, but negative influence on AQ (Hassan & Farouk, 2014). Similarly, ROA denoting the firms' profitability levels, the results reveal that it was positive and significant at 1% This gave an indication that, as the profit levels of firms in SSA increase, they can improve on their AQ positions, all other things being equal.

Regarding LEV, the study finds the coefficient of LEV of firms in SSA also to be positive and statistically significant at 1%, which means that as the debt levels of firms in SSA increase, they can improve on their AQ levels. This result indicates that firms in SSA, highly indebted firms are forced to disclose more accurate information to satisfy their creditors' benchmark. This is because companies with higher financial leverage are likely subjected to close monitoring by creditors thereby instigating a direct association between financial leverage and

AQ. Consistent with the debt covenants hypothesis by Watts and Zimmerman (1986), this study found that firm leverage has a positive effect on AQ for SSA firms.

Furthermore, the FirmGrowth coefficient is positive and statistically significant at 1%, suggesting that as firms in SSA experience value growth, it contributes to improving the AQ levels of these firms. This result adequately endorses what the literature documents that investors have preferences for higher accruals quality. At the margin, Oleg (2018) suggests that a 1% increase in the volatility of accounting error results in a 0,50% decrease in the firm value. Lastly, the coefficient of LagLoss is negative and statistically significant at 1%, again suggesting that a reduction in the loss before extraordinary items of SSA goes a long way to improve the AQ levels of SSA firms. The reason for this is that firms that are not profitable would find a way of attracting resources. This would be achieved through an improvement in their accounting practices because investors would peruse their financial statements before investing in them.

Regarding the validity of the study's results, it is reasonably robust and satisfactory. The test of second-order serial correlation AR (2) shows that the estimations have no problem of second-order serial correlation since the AR (2) tests statistics for Model 1 (p -value = 0.655), Model 2 (p -value = 0.676) and Model 3 (p -value = 0.656) are unable to reject the null of no second-order serial correlation. The Hansen tests for over-identification indicate the null of exogenous instruments is not rejected for Model 1 with (p -value = 0.942), Model 2 (p -value = 0.813) and Model 3 (p -value = 0.852), implying that the instruments do not suffer from misspecification. Table 4.4.6 below also depicts the regression results of the relationship between IP variables such as MinInt, the LRI and RegSE and the DA component of the FRQ of SSA firms.

4.4.6 Impact of MinInt, RegSE and LRI on DA of SSA firms

Similarly, in this section, the regression results of the relationship between IP variables such as protection of minority shareholders interest (MinInt), legal right index (LRI) and stock exchange regulations (RegSE), and the DA component of the FRQ of SSA firms are presented. The results are presented in Table 4.19 below.

Table 4.19: Regression Results on the impact of MinInt, RegSE and LRI on DA

Variables	Model 1 DA	Model 2 DA	Model 3 DA
	0.000	0.000	0.000
DA _{it-1}	(1.052)	(0.565)	(0.597)
	-113.298*	-	-
MINT _{it}	(-1.823)		
	-	-25.245***	-
RegSE _{it}		(-2.345)	
	-	-	-9.744
LRI _{it}			(-1.001)
	1.373***	0.462	3.544
EcoSize _{it}	(0.306)	(0.107)	(0.812)
	-117.119***	-106.804***	-94.160***
GDP _{it}	(-3.876)	(-3.501)	(-2.949)
	2.521***	2.529***	2.816***
Tax _{it-}	(3.907)	(3.419)	(4.001)
	-30.162	-32.658	-23.593
ProMgt _{it}	(-1.466)	(-1.551)	(-1.209)
	-11.853***	-11.005***	-11.034***
FirmSize _{it}	(-3.259)	(-2.090)	(-2.324)
	-1.148***	-1.082***	-1.147***
ROA _{it}	(-5.315)	(-3.996)	(-6.098)
	-7.347	-5.795	-5.199
LEV _{it}	(-0.392)	(-0.309)	(-0.281)
	0.658***	0.658***	0.658***
FirmGrow _{it}	(1609.063)	(1564.041)	(2441.091)
	-16.810***	-12.013	-13.878**
LagLoss _{it}	(-2.690)	(-1.304)	(-1.907)
	-22.522***	-23.794***	-21.491***
CFO _{it}	(-2.948)	(-2.768)	(-3.341)
	-17.671	-6.181	-11.863
FOwner _{it}	(-0.112)	(-0.211)	(-0.561)
Post-Estimation Tests			
AR 2	0.972	0.935	0.911
Hansen J-Stats	0.134	0.142	0.169
Number of Observations	1177	1177	1177
Number of Instruments	43	43	43
Cross-sections	307	307	307

Source: Researchers' Estimation

t-statistics in parenthesis; *** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Table 4.19 above shows the impact of MinInt, RegSE and the LRI on DA of SSA firms. The dependent variable was DA, The main independent variables are MinInt_{it}, LRI_{it} and RegSE_{it}. Other independent variables included EcoGrowth, ProMgt, EcoSize (economic size, which is proxied by GDP), Tax, (Total Tax rate), ROA (profitability proxied by return on assets), LEV (financial leverage), FOwn (Foreign Ownership, CFO (cash flow from operation volatility) and Lagloss (loss before extraordinary items).

In this section, the results of how IP variables such as the protection of MinInt, RegSE and LIR on the DA levels of firms in SSA are presented. A high level of DA is an indication of EM. The results of the study showed that the coefficient of lagged DA in all three models was positive but statistically insignificant. This means that the previous year's DA level of SSA firms did not affect the current year's DA level, all other things being equal.

The study hypothesised in Models 1 to 3 that the various IP variables such as the protection of MinInt, RegSE and the LRI have a negative relationship with the DA of firms in SSA. The results of the study showed that the coefficients of protection of the MinInt, RegSE and LRI variables were negative and statistically insignificant in Models 1 and 3. However, for Model 2, the coefficient of the RegSE variable was negative, but significant at 1%, indicating that stronger RegSE leads to a reduction in EM of SSA firms. This implies that EM is lower in countries with strong RegSE than a weakly regulated stock exchange in SSA. This is because strong stock exchange regulation ensures strong monitoring of firms accounting practices and punish firms for misreporting earnings by delisting culprit. Strong Stock Exchange regulation also inhibits insiders' ability to acquire private control benefits, which reduces their incentives to mask firm performance. These findings are consistent with the views of authors such as Leuz et al. (2003), Choi and Pae (2011), Houque et al. (2012) and Persakis and Iatridis (2016) who variously concluded that economies with relatively strong regulation and large stock markets exhibit lower levels of EM than countries with relatively less developed stock markets. The findings in Models 1 and 3 align with findings by Leuz et al. (2003) that earnings management is negatively associated with the quality of minority shareholder rights and legal enforcement.

Regarding the control variables, the study found that the coefficient of economic (EcoGrow) is positive and significant at 1% in Model 1, which suggests that the previous year's GDP growth of SSA countries contributes to increasing EM of firms in these countries, all other things being equal. This implies that EM by firms increases as the economy of the country experience growth indicating greater EM in good time as compared to bad times. These findings can be explained by Conrad et al. (2007) suggestion that during good economic times, investor reaction to earnings disappointments is more adverse. Therefore, firms are greatly incentivised to avoid poor earnings when the economic condition is good, so they are more prone to boost earnings at such times. This finding is consistent with Cohen and Zarowin (2007) who found that the tendency for firms to meet or beat benchmarked earnings is significantly related to the market-wide P/E ratio and that this relation is not due to time-vary firm effects that are associated with the level of the market.

For the economic size (EcoSize) coefficient, it was negative but statistically significant in all three models. This shows that as the size of the economies of countries in SSA increases, DAs reduce and, therefore, lower EM. This result implies that growth firms in bigger economies have lower DAs. Since a DA suggests a poor FRQ, the result showed that larger economies in SSA affect the financial reporting practices of firms positively. The possible reason for this could be that firms operating in bigger economies have a sound regulatory environment that dissuades or prevents them from engaging in high DA practices.

The coefficient of tax variable was positive and statistically significant at 1%, suggesting that an increase in the percentage of tax on corporate profits resulted in DA levels of firms in SSA. This suggests that firms have more tendencies to manipulate earnings in countries with a higher tax rate to avoid excessive taxes. The results of the study revealed that the firmSize coefficient is also negative but statistically significant at 1%, indicating that smaller firms engage in earnings manipulation than larger firms. Therefore, as firm size increase earning numbers improved in quality. This implies that bigger firms have a lower DA level which denotes quality financial reporting. This is possible because bigger may have the resources to hire or engage the services of qualified individuals to prepare their financial statements, which will result in a quality financial reporting practice. In addition, firms with resources can integrated technology into their financial reporting practice, which will improve their FRQ.

Additionally, the study finds that the ROA showing the firms' level of profitability is equally negative but statistically significant at 1% in all three models. This implies that an increase in the profitability levels of firms in SSA results in a decrease of these firms' EM practices (DA levels). This implies that an increase in the profitability of firms in SSA will increase the FRQ of firms operating in these countries. This may be because profitable firms would have the resources to hire qualified individuals to prepare their financial statements, which will result in a quality financial reporting practice. Another possible explanation is that profitable firms can invest in technologies, which will improve their FRQ. This finding is consistent with the view that the future profitability of firms is negatively associated with the firms' DA levels, as espoused by Modebach and Simko (2010).

Differently, the loss and CFO coefficients are negative and statistically significant at 1% in all the Models, which suggests that as cash flow from operation volatility and loss before extraordinary items decrease, firms in SSA increase on their DA. Furthermore, the results of the study showed that the FirmGrow coefficient was positive and statistically significant at 1%

in all three models, meaning that as firms in SSA experienced growth to value or performance, they engaged more in earnings manipulation. This finding was consistent with the position of Latif et al. (2017) that the DA positions of firms positively related to the maximisation of the value of firms. Lastly, the coefficients of the firms' ProMgt, Lev and FOwner were negative but statistically insignificant in the three models. This showed that ProMgt, LEV and FOwner did not have an impact on DA levels of firms in SSA. Broadly, the findings of this study appear to contradict Davidson et al. (2005) position that leverage and DA have a positive relationship. However, a subsequent study by Rahman and Ali (2006) and Yang and Krishnan (2005) did not document any significant relationship between company leverage and DAs.

Concerning the robustness and validity of the results, the empirical performance of the two-step system GMM estimation in this study is reasonably satisfactory and robust. The tests of second-order serial correlation AR (2) shows that all estimations have no problem of second-order serial correlation since the AR (2) test statistics are unable to reject the null of no second-order serial correlation for Model 1 (p -value = 0.0.972), Model 2 (p -value = 0.0.935) and Model 3 (p -value = 0.911) respectively. The Hansen test for over-identification indicates the null of exogenous instruments is not rejected with p -values of 0.134 (for Model 1), 0.142 (for Model 2) and 0.169 (for Model 3), respectively.

4.4.7 The effect of MinInt, RegSE and LRI on aggregate FRQ Index in SSA

In this section, the regression results of the relationship between IP variables (MinInt, LRI and RegSE) and aggregate FRQ (AFRQ) in SSA are presented. The measurement of aggregate FRQ is as described in the previous sections. The results are presented in Table 4.20 below.

Table 4.20: Regression Results on the impact of MinInt, RegSE and LRI on AFRQ

FRQ Variables	Model 1 AFRQ	Model 2 AFRQ	Model 3 AFRQ
AFRQ _{it-1}	0.161*** (2.910)	0.170*** (3.021)	0.179*** (2.486)
MinInt _{it}	-9.638*** (-2.700)	-	-
RegSE _{it}	-	-6.042*** (-2.242)	-
LRI _{it}	-	-	-0.164 (-1.338)
FOwn _{it}	-14.938* (-1.812)	-11.231 (-1.433)	-4.023*** (-2.36)
Tax _{it}	2.351*** (2.188)	1.352 (1.467)	0.107*** (2.202)
EcoSize _{it-1}	0.123	0.344	2.491

	(0.152)	(0.407)	(1.427)
EcoGrowth _{it-1}	0.074	0.037	0.051
	(1.608)	(0.831)	(1.116)
FGrowth _{it}	0.306***	0.305***	0.369***
	(4.110)	(4.048)	(3.765)
FSize _{it}	1.455***	1.320***	-3.91E-06
	(3.925)	(3.883)	(-0.525)
ROA _{it}	0.052***	0.053***	0.062***
	(2.215)	(2.170)	(2.462)
CFO _{it}	-0.254***	-0.272***	-0.316***
	(-2.639)	(-2.765)	(-2.746)
ProgMgt _{it}	4.171	1.041	6.634
	(0.785)	(0.211)	(1.136)
LEV _{it}	1.897***	1.907***	2.061***
	(2.299)	(2.251)	(2.197)
LagLoss _{it}	-0.114	-0.129	-0.083
	(-0.429)	(-0.489)	(-0.314)
Post-estimation Tests			
AR 2	0.989	0.975	0.998
Hansen J-Stats	0.515	0.545	0.152
Number of Obs.	1155	1155	1155
Number of Instruments	43	43	43
Cross-sections	307	307	307

Source: Researchers' Estimation

t-statistics in parenthesis; *** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Table 4.20 above shows the effect of MinInt, RegSE and LRI on aggregate FRQIFRQ in SSA. The dependent variable was AFRQ_{it} (financial reporting quality index). The main independent variables were MinInt_{it}, LRI_{it} and RegSE_{it}. Other independent variables include EcoGrowth, ProMgt, EcoSize (economic size, which is proxied by GDP), Tax (Total Tax rate), ROA (profitability proxied by return on assets), LEV (financial leverage), FOwn (Foreign Ownership, CFO (cash flow from operation volatility) and Lagloss (loss before extraordinary items).

Table 4.20 above presents the results of the relationship between IP regime and FRQ in SSA. These results as presented in Table 4.20 is based on the use of three key IP indicators such as the protection of shareholders' MinInt, LRI and the regulation of the stock exchange. The results show that the lagged coefficient of FRQ_{it-1} is positive and significant at 1% for all three models. This means that the previous year's FRQ of firms in SSA is relevant in describing the present FRQ of these firms. In Model 1, the study predicted a positive relationship between the coefficient of the protection of the minority interest and FRQ of SSA firms. Contrary to this prediction, the coefficient for the protection of the minority interest is negative but statistically significant at 1% This means that as the level of protection of minority shareholder interest in SSA firms increases their FRQ reduces. The reason may be that there are more important

factors that influence the FRQ of firms instead of institutional arrangements. This is inconsistent with the views of Choi and Pae (2011), Houqe et al. (2012) and Persakis and Iatridis (2016) who maintain that strong IP countries have higher FRQ than countries with weak IP regime. This according to the researcher stem from the presumption that a strong IP hampers the ability of corporate insiders to acquire private control benefits, which disincentivise earnings manipulations. Accordingly, harmonise accounting standards alone will not resolve financial reporting failures.

In Model 2, the study hypothesised a positive relationship between the coefficient for the $RegSE_{it}$ in SSA countries and the FRQ of firms in these countries. Inconsistent with this hypothesis, the results of the study show that the coefficient of the $RegSE_{it}$ is negative and statistically significant at 1% The meaning of this result was that as $RegSE$ declines, firms in SSA can improve on their FRQ. This could be due to the conflict that may exist between adherence to country regulations and financial reporting standards. In some cases, firms are required to prepare their financial statements to meet regulatory requirements. Such practices may negatively affect the quality of financial reporting in that country.

In Model 3, the study hypothesised a positive relationship between the coefficient of the LRI_{it} and the FRQ of SSA firms. However, the results of the study revealed that the coefficient of the LRI is negative and statistically insignificant. This implied that the strength of the LRI in SSA has no significant effect on the FRQ of firms in the jurisdiction. Overall, this study found that any of the IP variables (protection shareholder MinInt, LRI and $RegSE$) on their own cannot improve FRQ in the absence of a mechanism to detect the financial statement manipulation by a manager.

Concerning the effects of the other control variables on the firms' FRQ, the study reveals that the $FOwner_{it}$ coefficient for Models 1 and 3 is, and statistically significant at 10% and 1% respectively. This indicates that the FRQ of firms is lower in countries with more foreign ownership of firms than in countries with lower foreign ownership. The reason for this could be that firms may be forced to adopt the reporting practices of their parent companies, which may not be relevant in the local context. Therefore, as the control of firms rests with local investors, they may employ innovative ways in their financial reporting practices with will be relevant to the peculiarities of the countries where the firms operate. The results are consistent with Le et al. (2017) who finds that in contrast to the findings of An (2015), foreign ownership and FRQ are negatively related thus supporting the transient hypothesis of foreign ownership.

This hypothesis posits that foreign investors with a low level of ownership do not have significant incentives to closely monitor managers to ensure FRQ.

Regarding tax, the coefficient is positive and statistically significant at 1% for Models 1 and 3. This means that as the percentage of tax on profits of SSA firms increase, it contributes to improving the FRQ of these firms. This may be because firms may be forced to increase their FRQ when the tax rate increases. The reason is that firms would employ ways to reduce their tax burdens by engaging the services of experienced and qualified staff to prepare their financial statements. The finding broadly aligns with the study of Abedana et al. (2016) that corporate tax and FRQ have a positive association albeit a weak one.

About the coefficient for economic size (EcoSize) and economic growth (EcoGrowth) of SSA countries where firms selected for this study are located, the results of the study show that in all three models they are positive but statistically insignificant. The implication is that the size of these economies and how the total goods and services produced in the countries change from time to time do not affect the FRQ of firms in these SSA countries. Differently, the results show that the coefficient for the firms' growth is positive and statistically significant for the three models, indicating that as firms in SSA experience growth, the FRQ of the firms improves. The reason could be that the high-growth firms attract the eyes of investors and regulators who may subject these firms to analysis and monitoring to ensure that financial reporting is not manipulated.

Similarly, the size coefficient for Models 1 and 2 is positive and statistically significant at 1%, meaning that increases in the sizes of firms in the SSA region largely helps to improve the FRQ standards of firms from this region. The reason for this may be that as firms in SSA increase in sizes, their propensities to disclose more and high-quality information also increase since they come under more scrutiny. Another important variable is the ROAs representing the firms' profitability levels. Its coefficient is positive and statistically significant at 1% for all three models, which shows that improvements in the profit levels of firms in SSA result in the enhancement of the FRQ of these firms, all other things being equal. This relationship can be explained by the behaviour of managers, as they present quality information to show their capability to maximize value for shareholders and enlarge their compensation.

The CFO coefficient is negative and statistically significant ($p < 0.01$) for all three models. The meaning of this is that a reduction in the cash flow from operating activities of the firms may contribute to improving the quality of the financial reports. Further, the results of the study

depict that the coefficients for ProMgt and LagLoss of the firms in all three models are statistically insignificant. This means that ProMgt and LagLoss do not have any influence on FRQ. Lastly, the coefficient for LEV is positive and statistically significant in all three models, suggesting that as the firms' debt levels increase, the FRQ of these firms also improves. This can be because the creditors require good quality of financial reporting to grant credits to the firms and guarantee the repayment of the debts. The finding corroborates the claim of Hassan (2013) that the leverage of firms influences their FRQ. These scholars suggest that firms with higher leverage have higher earnings quality than firms with low leverage. The positive relationship of this study confirms findings from studies such as Kennedy (2003), Alsaeed (2006) and Hamzah (2007) who among others found higher debt firms are associated with higher agency costs and, therefore, need to have more information disclosed to satisfy the needs of creditors for information.

In terms of validity and robustness of the results, the two-step system GMM estimation for this study is reasonably satisfactory and robust. The test of second-order serial correlation AR (2) shows that the estimations have no problem of second-order serial correlation since the AR (2) tests statistics for Model 1 (p -value = 0.989), Model 2 (p -value = 0.975) and Model 3 (p -value = 0.998) are unable to reject the null of no second-order serial correlation. The Hansen tests for over-identification indicate the null of exogenous instruments is not rejected for Model 1 with (p -value = 0.515), Model 2 (p -value = 0.545) and Model 3 (p -value = 0.152), implying that the instruments do not suffer from misspecification.

4.4.8: The Relationship between IP and FRQ in SSA

In this section, the effect of the combined IP index (IP) on FRQ in SSA is investigated. The IP was measured as the average of the protection of MinInt, the LRI and RegSE. The FRQ were measured based on four variables, comprising AC, AQ, DAs and aggregate FRQ. The results are presented according to four models. Models 1 to 3, respectively, estimated the relationships between the IP index and the three components of FRQ involving AC, AQ and DA in the absence of AudQ. Model 4 also investigated the impacts of IP index (IP) on the aggregate FRQ of firms in SSA in the absence of AudQ. The results are provided in Table 4.21. The results in the table comprise the coefficients, t -statistics (in parenthesis) and the level of significance of the coefficients, which are represented by asterisks.

Table 4.21: Regression Results on the effect of IP on FRQ

FRQ	Model 1	Model 2	Model 3	Model 4
Variables	AC	AQ	DA	AFRQ
Constant	12.89282*** (10.75)	0.053871*** (8.44)	-71.61886 (-0.94)	0.3195*** (6.74)
AFRQ _{it-1}	-	-	-	1.188298*** (9.11)
AC _{it-1}	0.0065063* (1.69)	-	-	-
AQ _{it-1}	-	1.28553*** (17.32)	-	-
DA _{it-1}	-	-	-0.0292343*** (-4.65)	-
IP _{it}	0.0559004** (2.41)	9.26E+08*** (19.29)	-3.78072* (1.66)	4.09E+08** (1.97)
EcoSize _{it}	5.22E-11*** (11.86)	-0.0214506* (-1.91)	9.06E-10*** (19.15)	-0.0058 (-0.56)
EcoGrow _{it}	0.0883523 (0.12)	-1.11E+08*** (-6.65)	-0.0735454 (-0.05)	1.69E+08 *** (7.97)
Tax _{it}	-0.036205** (-2.49)	-2.73E+08*** (-19.36)	1.006982*** (6.23)	-2.45E+08*** (-13.54)
ProMgt _{it}	-2.037751** (-2.07)	2.36E+08** (2.66)	-11.72107*** (-11.40)	1.98E+09*** (8.88)
FOwner _{it}	1.756306 (0.89)	-9.99E+08 (-0.98)	27.47278** (2.48)	-2.30E+09*** (-9.39)
ROA _{it}	0.1410268*** (14.48)	-3.97E+07 (-0.75)	-0.1109298 (-0.07)	-3247743 (-0.43)
FirmSize _{it}	2.62E-07*** (3.11)	105824*** (19.19)	-0.000394*** (-3.68)	144113.2*** (19.33)
FirmGrow _{it}	-0.0016122* (-1.82)	-718713.8*** (-10.57)	0.657647*** (2032.912)	520796.4** (2.61)
LagLoss _{it}	3.707768 (-0.83)	0.07203 (-1.49)	11.38157 (0.17)	0.0565 (1.47)
LEV _{it}	0.0108209 (0.22)	1.35E+07 (0.72)	0.1575504*** (4.72)	2.26E+07 (0.65)

Post-Estimation Test

AR2	0.267	0.455	0.885	0.495
Hansen J Stats	0.861	0.158	0.188	0.619
Number of Obs.	1457	1525	1544	1505
Number of Int	21	21	21	27
Cross-sections	312	312	312	312

Source: Researchers' Estimation

*** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Table 4.21 above reports the regression results of the investigation of the combined IP Index on FRQ in SSA. The dependent variables were AC, AQ, DA and AFRQ_{it}. The main independent variables were IP_{it} (Investor Protection Index), MinInt_{it}, LRI_{it} and RegSE_{it}. Other independent variables included EcoGrow, ProMgt, EcoSize (economic size, which is proxied by GDP), Tax (Total Tax rate), ROA (profitability proxied by return on assets), LEV (financial leverage), FOwner (Foreign Ownership, CFO (cash flow from operation volatility) and Lagloss (loss before extraordinary items).

The results presented in Table 4.21 demonstrate the relationship between the IP index and aggregate FRQ and its three discrete components. The results show a positive relationship between the previous year's (lagged) FRQ and the current year's FRQ. Except for the coefficient of AC, the coefficient of all the other FRQ variables are significant. For the IP index (IP), the results show that it has a positive and significant relationship with the AC variable. This suggests that a firm operating in a country with a strong IP adopt aggressive accounting policies estimates in financial reporting than firms operating in countries with weaker IP regime. This is contrary to the hypothesis of the study that stronger and stricter IP regime will lead to the more conservative accounting practice of firms. This finding conflict with Bushman and Piotroski (2006); Ball et al. (2000); Holthausen (2003); Huijgen and Lubberink (2003); Ball et al. (2003); and Lubberink and Huijgen (2006) who found that firms in countries with strong judicial systems reflect bad news in earnings faster than firms in countries with weak judicial systems after controlling for legal origin. However, this is plausible in the sense that a strong IP regime strengthens investor and creditors to enforce their right and non-performing firms are likely to face liquidation or take-over in such an environment. As a result, in the absence of a detection mechanism, firms will take advantage of the flexibilities in accounting standards and will aggressively recognise income and expenses in reporting accounting numbers. In this study, when AudQ was not controlled for, AC was low in SSA countries with a strong IP regime.

The results further show a positive and significant ($p < 0.01$) relationship between the IP and AQ. This result implies that a strong IPs regime reflects in high AQ. The positive relationship between the IP and accruals quality suggests that firms in countries with a strong IP regime have high AQ, which is an indication of quality financial reporting.

In addition, in the study, a negative relationship between IP and DAs was predicted. The results affirmed the prediction by demonstrating a negative and insignificant relationship between IP index (IP) and DAs. This implies that a strong IP can result in a low level of DA. This result shows that firms in countries with a strong IP would enjoy a quality financial reporting regime. In the study, the relationship between the combined firm FRQ and the IP Index was also examined. The a priori was that a strong IP regime of a country would result in a quality financial reporting of firms in that country. The results are consistent with the a priori which shows a positive and significant relationship between IP index and firm quality financial reporting index. This result infers that a strong IP regime of a country can lead to quality FRQ

of firms in that country. The import of this result is that firms that operate in countries with a strong IP regime also have a quality financial reporting system.

The analysis of the results shows that a strong IP result in quality financial reporting. This result helps to shed light on the relationship between an institutional arrangement of a country and the financial reporting activities of those countries. This result is conceivable in many ways. First, investors are not directly involved in the regular management of firms. Therefore, financial reporting is the mean through which firms discharge accountability to their shareholders and the various shareholders. Because of this separation of power, countries may establish a good system to ensure that the financial reporting system of firms is robust and accurate. In this context, it is logical that firms operating in countries with strong IP would have quality financial reporting systems. In addition, countries with a stronger IP may have systems that prevent management from engaging in practices that are not accepted by the prescribed policies and standards. In addition, there may be harsher punishments for management who engage in activities that are contrary to the standards, policies and laws. In this context, they will be forced to practice quality financial reporting. This result is consistent with the views of authors such as Choi and Pae (2011), Houque et al. (2012) and Persakis and Iatridis (2016) Choi et al. (2018) who hold the view that FRQ is higher in countries with strong IP environment than those with a weaker IP regime. This is because a stronger IP constrains management to engage in rent-seeking activities where they acquire private control benefits at the expense of the general benefits of firms.

Concerning the control variables, their relationship with AC, AQ, DA and AFRQ are similar to those of the previous sections. The robustness tests confirm the validity of the results and the adequacy of the variables used for the estimation. First, the p -values of the AR2 of all the models are insignificant ($p > 0.05$) which shows that the results are robust and valid. In addition, the insignificance of the p -values of the AR2 leads us to reject the null hypothesis, suggesting that all the models do not suffer from the problem of autocorrelation, emphasising that the GMM results are robust and reliable. Concerning Hansen's J-test results, all the models had insignificant p -values. This suggests that the null hypothesis is rejected. This confirms that the overidentification restrictions on the model are not invalid. The insignificance of the Hansen test implies that the number of instruments used for the estimation does not have any negative effect on the estimators.

4.4.9: The interactive effect of IP and AudQ on FRQ in SSA

In this section, the interactive effect of AudQ and IP (IP) on FRQ is investigated. The FRQ was measured based on four variables, comprising AC, AQ, DAs and aggregate FRQI. The results are presented according to four models. In Model 1 to 3, respectively, the relationships between AudQ and the three components of FRQ involving AC, AQ and DA were estimated, while observing the moderating role of IP. In Model 4, the impacts of AudQ on the aggregate FRQ of firms in SSA were investigated, while at the same time assessing how IP moderates this relationship. The results are provided in Table 4.22. The results in the table comprise the coefficients, *t*-statistics (in parenthesis) and the level of significance of the coefficients, which are represented by asterisks.

Table 4.22: Regression Results on the interactive effect of IP and AudQ on FRQ

	Model 1	Model 2	Model 3	Model 4
Variables	AC	AQ	DA	AFRQ
Constant	615.7922*** (7.18)	6.17e+11*** (6.13)	2903.748* (1.88)	-6.53e+11 (-6.33)
AFRQ _{it-1}	-	-	-	.9870791*** (24.21)
AC _{it-1}	-0.0025137 (1.61)	-	-	-
AQ _{it-1}	-	0.9641637*** (23.70)	-	-
DA _{it-1}	-	-	-0.000579*** (3.30)	-
IP _{it}	-.6235007*** (-6.07)	8.59e+07 (0.76)	.5270648 (0.31)	5.09e+07 (0.44)
AudQ _{it}	46.67501*** (4.78)	1.90e+10** (1.97)	-799.1968*** (-5.31)	3.12e+10** (2.51)
IP*AudQ _{it}	.4545419*** (4.45)	1.89e+07 (0.17)	.16214 (0.09)	4.54e+07*** (4.39)
EcoSize _{it}	-24.55231*** (-3.28)	4.03e+10*** (4.62)	-217.5452* (-1.67)	4.21e+10*** (4.69)
EcoGrow _{it}	.0281228 (0.01)	-4.59e+08 (-0.24)	4.184079 (1.47)	-7.68e+08 (-0.38)
Tax _{it}	-25.43797** (-2.37)	4.38e+10*** (3.90)	337.7259* (1.70)	4.87e+10*** (4.11)
ProMgt _{it}	-1.799752 (-0.74)	-5.55e+09** (-2.33)	-58.54867 (-1.48)	-4.93e+09** (-2.01)
FOwner _{it}	-.2052462 (-0.06)	-9.06e+09** (-2.51)	-86.22398*** (-1.46)	-8.90e+09** (-2.40)
ROA _{it}	.0976573* (1.75)	1.56e+08*** (2.71)	-2.261391** (-2.40)	1.40e+08** (2.37)
FirmSize _{it}	-92.04305*** (-33.80)	4.49e+10*** (17.64)	88.18612* (1.79)	4.34e+10*** (16.71)
FirmGrow _{it}	-.0008782*** (-8.61)	-509994.3*** (-5.11)	.6531348*** (38.64)	-491429.8*** (-4.84)

LagLoss _{it}	-.8986386 (-0.83)	-1.10e+09 (-1.03)	.8268792 (0.04)	-1.02e+09 (-0.93)
LEV _{it}	-.00333 (-0.49)	261397.7 (0.04)	-.0187966*** (-0.16)	475600.8 (0.07)

Post-Estimation Test				
AR2	0.477	0.5028	0.439	0.632
Hansen J Stats	0.329	0.352	0.206	0.407
Number of Obs.	1198	1198	1198	1198
Number of Int	45	45	45	45
Cross-sections	299	299	299	299

Source: Researchers' Estimation, 2020

*** = $p < 0.01$; ** = $p < 0.05$; * = $p < 0.1$

Table 4.22 above also reports the regression results of the interactive effect of auditor quality (*AudQ*) and investor protection (*IP*) on *FRQ*. The dependent variables were *AC* (Accounting Conservatism), *AQ* (Accrual Quality), *DA* and *AFRQ_{it}* (Aggregate *FRQ* Index). The main independent variables were *AudQ* (proxied by *Big4* dummy) and *IP* (Investor Protection Index which proxied by the average of *MinInt*, *LRI* and *RegSE*). Other independent variables included *EcoGrowth*, *ProMgt*, *EcoSize* (economic size, which is proxied by *GDP*), *Tax*, (Total Tax rate), *ROA* (profitability proxied by return on assets), *LEV* (financial leverage), *FOwner* (Foreign Ownership), *CFO* (cash flow from operation volatility) and *Lagloss* (loss before extraordinary items).

In Section 4.3 (Objective 3), the regression results suggest that in the absence of *IP*, *AQ* does not significantly affect the quality of financial reports of SSA firms in all the financial reporting variables *AC*, *AQ*, *DA* and *AFRQ*). This, therefore, indicates that the relationship between *AudQ* and *FRQ* may be contextually dependent and that the relevance of big-sized firms in *FRQ* may be in the context of a regulatory regime and an *IP* regime. Therefore, without controlling for the regulatory regime or *IP* regime, a big-sized audit firm has no significant effect on financial reporting in SSA.

Regarding the fourth objective of the study, the results of which are presented in Sections 4.4.4 to 4.4.8 above, mixed results were found using individual *IP* metrics. However, regressing the combined *IP* index against the various elements of *FRQ*, the result indicates that a strong *IP* regime of a country can lead to high-quality *FRQ* of firms in that country. The import of this result is that firms that operate in countries with a strong *IP* regime also have a quality financial reporting system.

The results in Table 4.22 are consistent with the results in the previous section, which shows a positive and significant relationship between *IP* and *FRQ*. This result shows that an increase in the *IP* will increase the *FRQ* of firms in SSA. This implies that firms that operate in countries in SSA with high *IP* regime would have quality financial reporting. It was found that when *AudQ* is controlled for *IP*, it is negatively related to the *AC* variable and, therefore, suggests that in the presence of *AudQ* firms operating in a country with a strict *IP* regime will adopt

more conservative accounting policies and estimates than firms operating in a feeble IP environment.

In this section, the IP variable is further introduced to examine whether the IP regime of a country in SSA influences (IP*AudQ) the relationship between AudQ and FRQ. AudQ was measured by the dummy of the Big4 audit firm. The study established a positive and significant ($p<0.05$) relationship between AudQ and AQ and aggregate FRQ, which shows that the use of big-sized audit firm results in quality financial reporting when the IP regime is controlled for. In addition, the result shows that AudQ has a negative relationship with both AC and DA. This suggests that in the presence of strong minority shareholder protection, the strong legal right of investor and high-level regulation of stock exchange (a strong IP regime) the use of quality auditors (Big4 audit firm) lead to improved AC and reduction DA. This negative relationship between these variables indicates that a strong audit regime results in quality financial reporting when IP variables and MgtQ are controlled. The AudQ variable further has a positive and significant ($p<0.05$) relationship with AQ and AFRQ. These results demonstrate that in the presence of a strong IP regime, AudQ would have a positive impact on the quality of financial reporting of firms. These results are interesting, given that the results presented in Table 4.13 show that the absence of IP, Big4 have an insignificant impact on the quality of financial reporting.

These results suggest that in a country with strong protection of minority shareholder interest, LRI and strict RegSE (strong IP Index), the use of AudQ would positively influence the financial reporting system of firms in that country. However, in the absence of a strong IP regime, the use of AudQ would have no significant effect on the quality of financial reporting of firms in the jurisdiction. These results are reasonable because the Big4 audit firm would enhance FRQ when the IP regime is stronger because of the deep pocket hypothesis and their susceptibility to litigation. In addition, as the legal regime and enforcement system in a jurisdiction become stricter and there is a greater likelihood that misreporting is detected and are punished, Big4 audit firms become more susceptible to litigation because of their wealth and they are forced to improve reduce audit risk.

These results imply that in the presence of strong IP in a country the use of Big4 audit would have a significant positive effect on firms' financial reporting behaviour, which is consistent with the perspective of the Institutional Theory on the effect of coercive isomorphism. This result affirms the view that FRQ is higher in countries with quality auditing and strong IP

environment than a weak IP regime because strong IP inhibits insiders' ability to acquire private control benefits, which reduces their incentives to mask firm performance (Choi & Pae, 2011; Houque et al., 2012; Persakis & Iatridis, 2016). These findings further confirm the findings of similar studies in developed countries such as that of Persakis and Iatridis (2016) who used data from advanced countries from 2005 to 2012 to show that higher AudQ implies a higher earnings quality in countries with higher IP in all clusters, irrespective of the financial crisis. In addition, the findings are similar to the findings of Shen and Chih (2005) who documented that stronger protection of investors and quality audit can reduce banks' incentives to manage earnings.

These results further suggest that the interaction of strong IP ensured a positive relationship between AudQ and FRQ. Therefore, in countries with a strong IP regime, AudQ would enhance FRQ. In addition, the results confirmed the reputational hypothesis of DeAngelo (1981) and the deep pocket hypothesis of Dye (1993) and Lennox (1999) that quality FRQ will characterise firms audited by well-known big international auditors who are more susceptible to litigation because of their greater wealth. Consequently, strong IP interplays with auditor independence ensure FRQ. Furthermore, the lack of a strict regulatory and enforcement regime makes auditors susceptible to acquiescing to fraudulent financial reporting behaviour of firms for fear of dismissal by clients. As a result, audit firms (Big4 or non-Big4) may engage in fraudulent behaviour. However, as an IP regime becomes stricter and stronger and there is a greater likelihood that misreporting by management will be detected, big-sized audit firms will be more exposed to litigation and reputation risks and will not be afraid of arbitrary dismissal. This result is consistent with the findings of previous studies such as Garcia-Sanchez and Garcia-Meca (2017), El-helay et al. (2018) and Persakis and Iatridis (2020) who found that IP leads to FRQ only for firms with Big4 auditors. It is also consistent with studies such as Newman et al. (2005); Francis and Wang (2008); Van Tendeloo and Vanstraelen (2008) and Persakis and Iatridis (2016) in which it was found that strong IP interplays with AQ to ensure enhanced FRQ.

In the study, it was predicted that the IP regime (IP_{it-1}) would strengthen the relationship between AudQ and FRQ (AFRQ). Therefore, it was expected that the coefficient of $IP \times AudQ$ to be positive and significant. The result is consistent with the a priori, which shows that the coefficient of $IP \times AudQ$ is positive and significant at 1% in model 4. This suggests that IP significantly influences the relationship between AQ and FRQ. This result implies that a firm that enjoys quality auditing would benefit from good financial reporting if they operate in

countries with a strong IP. There are some possible reasons for this result. First, firms that employ any of the Big4 audit firms would enjoy extra benefits and services such as quality professional services, state-of-the-art technology and extra management advisory services. Secondly, the staff of the firms may tap into the experience and expertise of the Big4 audit staff to improve their internal operations. Another reason is that the Big4 firms may render additional non-audit services such as internal control systems that will improve the quality of the financial reporting of the firms.

Concerning the robustness of the results and the adequacy of the variables used for the estimation, the p -values of the AR2 of all the models are insignificant ($p > 0.05$). The insignificance of the p -values of the AR2 leads us to reject the null hypothesis. This suggests that all the models do not suffer from the problem of autocorrelation, emphasising that the GMM results are robust and reliable. Hansen's J-test results are also insignificant in all the models. This implies that the null hypothesis was rejected, indicating that the over-identification restrictions on the model are invalid. This result suggests that the number of instruments used for the estimation does not have any negative effect on the estimators.

4.5 Summary and conclusion

In this study, how the interplay of IP and AudQ relate with FRQ in SSA was investigated. The influence of MgtQ on the FRQ of firms in SSA and the influence of IP on MgtQ were also examined. In this chapter, the results of the study were presented. The results were analysed and discussed. The analyses and discussions of the results were done based on the five main objectives. In the first objective, the relationship between MgtQ and FRQ of countries in SSA was examined. A positive and significant relationship was documented between ProMgt and FRQI, and a positive and significant relationship between BodEff and FRQI. This implies that an increase in reliance on ProMgt and BodEff would increase the quality of financial reporting of SSA firms. Consequently, countries with higher MgtQ will have higher FRQ. This result is consistent with the Neoclassical Institutional Theory articulated by Meyer and Rowan (1977) and DiMaggio and Powell (1983) who postulated that organisations are influenced by the society in which they operate.

In the second objective, the study assessed the impact of IP on MgtQ in SSA. The IP was measured by three variables, comprising protection of MinInt, the LRI and RegSE. The results for this objective of the study revealed the following, namely that SSA firms' reliance on ProMgt is influenced by their past practice, in other words, how they have relied on ProMgt in

previous years. Secondly, the results showed that $MinInt_{it}$ has a positive, but insignificant relationship with $ProMgt$, which implies that although an increase in the extent to which countries in SSA protect the interest of minority shareholders increases their reliance on professional management, the level on-increment may not be substantial. The positive sign between $MinInt_{it}$ and LRI_{it} , on the one hand, and $ProMgt_{it}$, on the other, indicates that a country with a strong system to protect $MinInt$, while at the same time having higher legal right interests would rely on $ProMgt$. The result further indicates that all three variables, comprising $MinInt_{it-1}$, LRI_{it-1} and $RegSE_{it-1}$ have positive and significant relationships with $BodEff_{it}$. These results suggest that an increase in $MinInt_{it}$, LRI_{it} and $RegSE_{it}$ would result in a positive and significant ($p < 0.01$) increase in $BodEff_{it}$ of firms in SSA. This implies a positive and significant relationship between $BodEff$ and the protection of investors regime in SSA. Overall, in this study, it is suggested that there is high $MgtQ$ in SSA countries with a strong IP regime than countries with a weak IP regime. Affirming the Agency Theory, this result demonstrates that the perceived challenges associated with the separation of power would compel countries to formulate policies and measures to protect the interest of shareholders. This will improve the quality of management in that country.

In the third objective, the relationship between $AudQ$ and FRQ in SSA was investigated. The size of audit firms (Big4 and non-Big4) was used to measure $AudQ$. The FRQ is a firm-specific variable that was measured based on three variables, comprising AC , AQ and DA . The result, which is a variant with the postulations of Agency Theory showed that $AudQ$ and FRQ had a positive, but statistically insignificant relationship, suggesting that an improvement in the quality of auditors of firms in the SSA region does not affect the FRQ of these firms in any way.

In the fourth and fifth objectives, respectively, the relationship between an IP regime and FRQ and the moderating role of IP in the interaction between $AudQ$ and FRQ were investigated. The IP was measured by four variables, comprising protection of $MinInt$, LRI , $RegSE$ and investor protection index (IP). The result of this objective of the study shows that an increase in the IP will increase the FRQ of firms in SSA. This implies that firms that operate in countries in SSA with high IP regime would have quality financial reporting. The result relating to the investigation of whether the quality ($IP * AudQ$) of an audit by firms influences the relationship between IP and FRQ shows that the coefficient of $IP * AudQ$ is positive and statistically significant at 1%. This $AudQ$ improves the FRQ of firms more in countries with a strong IP regime than in a country with a weak IP regime.

Though there is apparent consistency in existing studies on the effect of IP on FRQ, researchers who have investigated this empirical question, seem to have only highlighted certain key control variables and left out the professionalism of management which is critical in ensuring FRQ. Management is primarily responsible for ensuring that corporate overall control environment and internal control system including financial information system, yield a high-quality financial report to company's stakeholders. Therefore, the quality of management will, to a large extent, drive FRQ. As the IP regime become stronger, FRQ will be enhanced if management is more susceptible to reputational damage. Such exposure to reputational damage is more grievous for ProMgt than non-ProMgt. This result and explanation support the Agency Theory because, as an IP regime becomes stronger, FRQ will be enhanced more for countries that rely more on ProMgt than those that rely less on ProMgt. However, it is important to state that the application of these theories may be context-specific and may not prevail in a different context.

In the following chapter, the summary, conclusion and recommendations of the study are provided.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

5. Introduction

This last chapter presents the summary, conclusions, recommendations and policy implications. The chapter starts with a summary of the key or major findings, followed by the study's contributions and the policy implications that the study's findings put forward. Finally, areas for possible future research are suggested.

5.1 Summary of the study

This study investigated IP, AudQ and FRQ in SSA. This study covers five chapters with Chapter 1 has dealt with the background of the study, the research problem, the objectives of the study, the research questions, the significance of the study, the scope of and limitations to the study, and the organisation of the study.

In Chapter 2, the conceptual literature relating to IP, AudQ, MgtQ and FRQ were reviewed. In this chapter, the literature on theories that underpin this study was also reviewed. These theories include agency and institutional theories. Lastly, in Chapter 2, the various empirical literature related to this study were reviewed on the relationship between MgtQ and FRQ, AudQ and FRQ, IP and MgtQ, IP and FRQ, and the interactive effect of IP and AudQ on FRQ.

In Chapter 3, the methodology used in this study was highlighted to investigate the various objectives. In this methodology chapter, the sources of data and estimation techniques used to estimate the various models used for the investigation of the objectives of this study.

In Chapter 4, the main objectives of the study were investigated. Investigations in this chapter covered data presentation, analysis and discussion of the results. In Chapter 4, the influence of MgtQ on the FRQ of firms in SSA was examined in the first section of the chapter. The study employed a generalised method of moments to investigate this objective. This technique offers the benefit of providing additional instruments of the level equations, together with the orthogonal deviations, and enhancing estimation efficiency. It also addresses the potential problems of endogeneity and heterogeneity usually associated with dynamic panel regression analysis.

In Section 2 of Chapter 4, the third objective of this study, which explored the relationship between IP and MgtQ in SSA, was investigated. IP was measured by three variables, comprising protection of MinInt, the LRI and RegSE. The model for this objective was again estimated using the generalised method of moments (GMM) technique.

Furthermore, Section 3 of Chapter 4 also investigated the second objective relating to the relationship between AudQ and FRQ in SSA. The main independent variable used in this study was the AudQ variable. In addition, in this chapter, the relationship between AudQ and the various components of FRQ comprising the AC, AQ and DA were examined. The GMM was also used to estimate the model relating to the investigation of this objective.

Similarly, Section 4 of Chapter 4 investigated the fourth objective of the study, which examined the relationship between an IP regime and FRQ in SSA using three indicators of IP. These indicators included the protection of MinInt, RegSE and LRI. The study further explored the impact of these IP indicators on the various components of FRQ of AC, AQ and DA. The protection of MinInt measured the strength of the protection of interests of minority shareholders and ranged from 1 to 7, where 1 signified not protected by law and 7 signified protected by law and actively enforced for country i in year t . RegSE measured the strength of regulators to ensure the stability of the financial market and ranged from 1 to 7, where 1 signified the regulators' ability to ensure that a stable financial market was weak and 7 signified strong regulators' ability to ensure stability in the financial market for country i in year t . The LRI also measured the strength of the legal rights of investors and ranged from 1 to 10, where 1 signified that the legal right of an investor was low protected and 10 signified that the legal rights of an investor were highly protected for country i in year t . Similar to the above chapters, the model for this objective was estimated using the GMM technique.

Lastly, Section 4 of Chapter 4 also investigated the fifth objective of this study. This objective investigated the moderating role of IP in the interaction between AudQ and FRQ. Again, the GMM technique was used in estimating the model for this objective.

5.2 Key findings

Based on the summary given in the foregoing for this study, the following important findings were identified which significantly contribute to expanding the body of knowledge. The review of the various literature relating to FRQ indicated the different factors that impact the FRQ of firms in the SSA region. Some of these influencing factors include reliance on ProMgt, quality

of audit, economic size, economic growth and taxation, among others. However, the major findings for the various objectives of the study are presented below.

The first objective of the study investigated the influence of MgtQ on the FRQ of firms in the SSA. To the best of my knowledge, this is the first time an investigation such as this is being conducted. The main independent variables used to investigate this objective were the reliance on ProMgt and BodEff. Concerning the reliance on ProMgt, the study predicted a positive relationship between the reliance on ProMgt and the national level of the FRQI. The result is consistent with the expectation by demonstrating a positive relationship between ProMgt and FRQI, suggesting that ProMgt significantly improves FRQ. Regarding BodEff, the study predicted a positive relationship of it and would be the quality of the FRQI of firms in SSA. Supporting this prediction of the study, the results showed a positive and significant relationship between BodEff and FRQI. This implies that countries with a high level of BodEff have a high level of FRQ, indicating that an increase in BodEff will increase the quality of financial reporting of SSA firms.

Regarding the second objective on the relationship between IP and MgtQ in SSA, IP was measured by three variables, comprising protection of MinInt, the LRI and RegSE. The MgtQ was measured by two metrics, which are reliance on ProMgt and BodEff. To the best of our knowledge, this is the first study investigating the relationship between IP and MgtQ in SSA. The results for this objective of the study revealed the following, namely that the reliance of SSA countries on ProMgt is influenced by their past practice, in other words, how they have relied on ProMgt in previous years. Secondly, the results showed that $MinInt_{it}$ has a positive, but insignificant relationship with ProMgt. This suggests that although an increase in the extent to which countries in SSA protect the interest of minority shareholders and increases their reliance on professional management, the level of increment may not be substantial. Thirdly, the result of the study demonstrated that LRI_{it} has a positive and significant relationship with ProMgt. This result implies that an increase in the LRI will translate into a significant increment in a country's reliance on ProMgt. Fourthly, the result also showed that there is a positive, but insignificant relationship between RegSE and reliance on ProMgt. This result implied that a firm that is listed on a stock exchange that is heavily regulated will seek the services of ProMgt. The overall results indicated that SSA countries with a stronger IP regime will have a higher level of reliance on ProMgt than countries with a weak IP regime.

The results of the impact of IP on the BodEff of firms in SSA showed that the lagged BodEff has a positive and significant relationship with BodEff, indicating that the previous level of efficiency of the board of the firms in SSA significantly explains the current level of efficiency of the board in SSA. The results showed a positive significant relationship between the protection of minority interest and BodEff; a positive significant relationship between the LRI and BodEff and a negative significant relationship between RegSE and BodEff. This implies that countries with either a high level of protection of minority interest or a high-level LRI will have a more efficient board than countries where either of these variables is weak. However, countries with strong regulation of the stock exchange have less BodEff. The overall result indicated a positive significant relationship between the IP regime and BodEff. Therefore, an increase in $MinInt_{it}$ and LRI_{it} will result in a positive and significant increase in $BodEff_{it}$ of firms in SSA. This implied that in SSA countries with a stronger IP regime, BodEff is higher than in countries with a weaker IP regime. However, strict RegSE in SSA will lead to less BodEff.

The third objective investigated the relationship between AudQ and FRQ in SSA. The main independent variable used in this study was the AudQ variable measured as the Big4 audit firm versus a non-big audit firm. In addition, in this chapter, the relationship between AudQ and the various components of FRQ comprising the AC, AQ and DA were examined. Other factors influencing the FRQ of SSA firms such as the firms' ethical behaviour, tax levels, their growth, ROAs, financial leverage, ProMgt, firm size (proxied by total assets), GDP and GDP growth rate of countries in SSA were also investigated.

To the best of the knowledge, this is the first time an investigation of this nature has been conducted where AudQ is investigated to determine if it influences the FRQ of firms from an SSA perspective. It is also the first time where an investigation has been conducted to establish the impact AudQ has on FRQ and its components such as AC, the AQ and DA of SSA firms.

The study predicted a positive relationship between AudQ and the FRQ of firms in SSA. Contrary to this prediction, the results showed that AudQ and FRQ have a positive, but statistically insignificant relationship. AudQ also showed a positive relation with AQ, AC and DA, but was statistically insignificant. These results suggested that the AudQ used by firms in SSA do not significantly affect the FRQ, AC, AQ and DA of these firms. This result suggested that improvement in the AudQ of firms in the SSA region does not affect the FRQ of these firms in any way. This indicates that the non-Big4 auditing firms in SSA may also be good and

that their level or standard of work is not significantly different from those of the Big4 firms. This suggests that the Big4 may be overhyped, hence they do not significantly contribute to the quality of financial reporting in SSA firms. These findings contradict a similar study by Kamolsakulchai (2015) who found a positive and statistically significant relationship between AudQ and FRQ significantly.

The fourth objective examined the relationship between an IP regime and FRQ in SSA using three key indicators of IP. These indicators include the protection of the shareholders' MinInt, RegSE and LRI. The study further explored the impact of these IP indicators on the various components of the FRQ of AC, AQ and DA. To the best of the knowledge, this is the first study investigating whether IP variables such as the protection of the MinInt, RegSE and the LRI influence the FRQ of SSA firms and, therefore, significantly contribute to enlarging the sparse empirical studies in this area of study. The results for this objective showed that the IP variables such as the protection of MinInt and RegSE have a negative and statistically significant relationship with the FRQ of firms of SSA. This means that as the level of the protection of MinInt in SSA firms increases, the FRQ of SSA firms reduces. The results also mean that as RegSE declines, firms in SSA can improve on their FRQ. Furthermore, the results showed that the LRI of SSA countries is also negative, but statistically insignificant, which implies that changes in the LRI_{it} of countries in SSA do not have an impact on the FRQ of SSA firms. Moreover, the study revealed the results of the impact of the IP indicators stated above on the components of the FRQ of AC, AQ and DA. The results of the study showed that as the protection of the minority interest in firms from SSA improves, it helps these firms enhance their AC practices, all other things being equal. The study again showed that as the strength of the stock exchange, which ensures the stability of the financial market, declines, firms from the SSA can improve on their AC practices, although not in a very effective way. The study further indicated that as the LRI_{it} of countries in SSA improves, firms in these countries are not able to put measures in place to achieve corresponding improvements in their AC practices.

For the AQ component of FRQ, the study suggested that the protection of MinInt, RegSE and the LRI have no impact on AQ levels of SSA firms, all other things being equal. Concerning DA, the study found that the protection of the MinInt and the LRI also did not influence the DA levels of SSA firms, however, as RegSE improves, earnings management reduces and, therefore, firms are forced to ensure quality earning numbers in SSA.

Regarding the AFRQ of a firm, it is suggested that any of the IP variables (protection shareholder MinInt, the LRI and RegSE) on their own cannot improve the FRQIFRQ of firms in the absence of a mechanism to detect financial statement manipulation by a manager. Protection of the MinInt was negative but statistically significant at a 1% relationship with the AFRQ of a firm. RegSE_{it} in SSA countries has a significant negative relationship with FRQ and the LRI has a negative and statistically insignificant relationship with the AFRQFRQ. These results, nevertheless, further showed that the combined IP Index has a significant positive impact on all FRQ indicators, except AC.

Regarding the control variables, the study again revealed that factors such as firm ownership, tax level, firm growth, firm size, ROA, CFO and LEV have a significant influence on the FRQ of firms from SSA. In particular, it was found that the tax levels of the firms, LEV, ROA, the firms' sizes and firm growth have a positive effect on the FRQ of firms from SSA. However, firm ownership and CFO have a negative association with the FRQ of SSA firms.

The fifth objective investigated how the interaction between IP and AudQ affects the FRQ when MgtQ is controlled for. The description and measurement of IP and its selected variables, AudQ and MgtQ for this objective of the study are the same as provided in the previous sections. To the best of the knowledge, this is the first study to investigate how the interaction between IP and AudQ affect the FRQ when MgtQ is controlled for.

The result of this objective of the study showed that an increase in IP will increase the FRQ of firms in SSA. This implies that firms that operate in countries in SSA with a high IP regime will have quality financial reporting. It was also found that AudQ has a positive impact on all FRQ indicators when IP variables are controlled. This suggested that in an SSA country with a strong IP regime, the use of AudQ will lead to improved FRQ than in a feeble IP regime. In the absence of a strong IP environment in a country, the use of AudQ has no significant effect on the FRQ of a firm.

The result relating to the investigation of whether an IP regime of a country influences the relationship between AudQ (IP*AudQ) and FRQ showed that the coefficient of IP*AudQ is positive and statistically significant at 1% This suggested that IP significantly influences the relationship between AudQ and FRQ. This result implies that a firm that enjoys quality auditing will benefit from sound financial reporting if they operate in countries with a strong IP.

Lastly, in terms of methodology, in the study, the dynamic panel two-step difference GMM estimation technique was employed to investigate the various objectives of the study. Even though this method may have been used previously in the literature in different economic regions with different technological, economic and legal environments, in this study, for the first time, it has been used in new ways to investigate IP, AudQ and FRQ in sub-Saharan Africa (SSA). To the best of my knowledge, this is the first study that has studied this phenomenon.

5.3 Conclusion

Based on the results of the analysis of the various objectives investigated in this study, the following conclusions were drawn. First, ProMgt significantly improves FRQ. This means that a country that heavily relies on the services of ProMgt will have quality financial reporting. Secondly, an increase in BodEff will increase the quality of financial reporting of SSA firms as boards of directors supervise the management of firms. Therefore, if these boards are efficient, they will also hire efficient management who will prepare quality financial reports.

Thirdly, SSA firms' reliance on ProMgt is influenced by their past practice, in other words, how they have relied on ProMgt in previous years. It is also concluded that MinInt_{it} has a positive relationship with ProMgt. Furthermore, the study concludes that LRI_{it} has a positive and significant relationship with ProMgt. Lastly, there is a positive, but insignificant relationship between RegSE and ProMgt. It can further be concluded that an increase in MinInt_{it}, LRI_{it} and RegSE_{it} will result in a positive and significant increase in BodEff_{it} of firms in SSA, implying that in SSA countries with a stronger IP regime, BodEff is higher than in countries with a weaker IP regime.

Fourthly, improvement in the quality of auditors of firms in SSA does not affect the FRQ of these firms in any way. This indicates that the non-Big4 auditing firms in SSA may also be good and that their level or standard of work is not significantly different from those of the Big4 firms.

Fifthly, it can be concluded that improvement in the protection of the MinInt in SSA firms adversely affects the FRQ of SSA firms, while the decline in RegSE in SSA countries positively impacts the FRQ of firms from SSA. The study, however, concludes that improvement in the LRI of countries in SSA has no impact on the FRQ of firms from SSA. However, a combined IP Index has a significant positive impact on all FRQ indicators, except the AC variable.

Lastly, firms that operate in countries in SSA with a high IP regime will have quality financial reporting. In addition, the study concludes that an IP regime significantly influences the relationship between AudQ and FRQ.

5.4 Recommendations

First, although the effect of the FRQ on SSA firms was not thoroughly explored in this study, under international accounting practices, managers of SSA firms still have to pay closer attention to the issue of the impact or effect of the FRQ of SSA firms. This is because the assessment of the real impact of the FRQ of SSA firms may unveil to these firms how the quality of their financial reports may enhance the firms' performances. Therefore, managers should be able to predict the possible influence that the quality of financial reporting will have on their future investment decisions since it can make prospective investors guard them against investing in poorly managed firms.

Secondly, managers of SSA firms should also focus on growing other areas of their businesses, including improving their sizes (which is proxied by their total assets), increasing their profitability (which is proxied by ROAs), growing the firms, expanding the sizes of SSA economies as these variables have a positive impact on the FRQ of firms in SSA, all other things equal. Indeed, the results of this study indicated that they have a significant influence on the ability of firms to enhance their financial reporting standards.

Thirdly, the findings of this study suggested that the quality of auditors of SSA firms does not affect the FRQ of these firms in any way. This suggests that the non-Big4 auditing firms in SSA may also be good and possibly that their level or standard of work is not significantly different from those of the Big4 firms. Nonetheless, it is still important for non-Big4 auditing firms in SSA to improve their financial reporting practices to the levels of the Big4 auditing firms as they continue to serve as the benchmark for internationally accepted accounting standards in many respects.

Another important recommendation this study proffers is that if SSA firms are contemplating improving the quality of their FRQ, they should take into account that corporate governance effectively improves the earning quality and value of the firm. As a result, these corporate governance measures such as management structure, ownership structure, information disclosure and shareholders' rights could have an impact on the FRQ of SSA firms.

Lastly, it is recommended that listed firms should strive to maintain higher reporting disclosure quality of their annual reports and accounts. This, therefore, places an additional responsibility on firms' management to ensure that their financial reporting systems, including the overall control environment, operate according to acceptable international standards. This will result in the high quality of financial reports provided to the firms' stakeholders.

5.5 Policy Implications

The findings of this study had several policy implications, which includes the following:

- 1.5.1 First, the study documented a positive and significant relationship between reliance on ProMgt and BodEff and FRQI. This implies that firms can increase their FRQ if they engage the services of ProMgt and an efficient board of directors. Therefore, the governments and regulatory bodies in SSA must introduce corporate governance systems that will require a certain level of experience and qualification from management and boards of directors.
- 1.5.2 The results further showed that IP and FRQ have a positive and statistically significant relationship, suggesting that an improvement in the quality of IP affects the FRQ of these firms in any way. This result implies that the financial reporting regime of firms in SSA can improve if these countries have a strong IP regime. Therefore, there is the need for the various governments in SSA to promulgate laws and regulations to protect the interest of investors, which will result in a quality financial reporting regime.
- 1.5.3 The study established a positive and significant relationship between AudQ and FRQ, which showed quality audit results in quality financial reporting. These results imply that the presence of a Big4 audit firm in a country with strong IP will have a significant effect on firms' financial reporting behaviour. The firms must, therefore, endeavour to engage the Big4 audit firms who will provide professional advice to improve the quality of financial reporting of firms. This is key because investors are influenced by the relevance and reliability of accounting information.

5.6 Limitations to the study

Similar to all research works, this study had its fair share of impediments. The main challenges which served as constraints were the issues of data limitation for firms from the SSA countries. Data collected were largely firm-level and country-level data from firms' published annual financial statements and the World Bank's data sources. Even though without a doubt, financial

statements are globally recognised sources of research data, they are limited by different sets of assumptions concerning their preparation, and accordingly across SSA countries with their attendant impacts on some of the variables that were used. The study again had other challenges, for instance, not all the firms from SSA were listed on their respective stock exchanges. Hence, only listed firms from the selected countries were included in the study. Furthermore, firms that were initially selected had issues of missing data as far as the period the study covered was concerned and, therefore, had to be removed from the study's final sample. Additionally, because of the availability of data and its management, financial and time challenges, some of the countries from SSA were not included in the study. This means that the generalisation of the research findings to the entire SSA will not be possible. As a result, a thoughtful approach was used to reduce the generalisation of the results to other countries that were not selected for this study.

Lastly, it was challenging to identify firms that specialise in one line of business as most of the firms on the various stock exchanges were largely diversified and conglomerates in nature. Therefore, sectoral analysis was compromised to some extent. Sectoral analysis demands that firms strictly fit in one sector.

5.7 Areas for further research effects

Based on exposures gathered in this study, the following areas have been identified and are suggested for further studies. First, future researchers may consider researching FRQ using interviews and quantitative data where the scholars could support a quantitative method to shed more light on the quantitative results.

Secondly, this study was based on a relatively small sample, which does not include firms in the financial sector in SSA. Future research, using larger samples of firms from all sectors from countries in SSA may provide additional insights into the validity of the findings.

Thirdly, this study was based on AudQ and IP indices FRQ. Future studies could examine several other institutional and governance factors that may affect the AudQ and FRQ of SSA firms.

Fourthly, a country-specific analysis could not be conducted because of data constraints. Therefore, research studies relating to the FRQ of individual SSA countries will be insightful to be undertaken when data become available for more firms from individual SSA countries.

Lastly, it is strongly believed that the findings of a research study on FRQ and the outsourcing of accounting tasks by firms from SSA will be insightful and contribute meaningfully to the body of knowledge

REFERENCES

- Ababio, E. P. (2017). Overview of the African peer review mechanism in selected African Countries. In *Public Administration in Africa* (pp. 153-165). Routledge.
- Abdullah, H., & Valentine, B. (2009). Fundamental and ethics theories of corporate governance. *Middle Eastern Finance and Economics*, 4(4), 88-96.
- Abernathy, J. L., Kubick, T. R., & Masli, A. (2018). Evidence on the relation between managerial ability and financial reporting timeliness. *International Journal of Auditing*, 22(2), 185-196.
- Abid, A., Shaique, M., & Anwar ul Haq, M. (2018). Do big four auditors always provide higher audit quality? Evidence from Pakistan. *International Journal of Financial Studies*, 6(2), 58.
- ACFE (2014). *Fraud Examiners Manual, International Edition*. Association of Certified Fraud Examiners Inc.
- ACFE (2016). Report to the Nation – On Occupational Fraud and Abuse, Association of Certified Fraud Examiners, Austin, TX. , [Google Scholar](#)
- ACFE (2020). Report to the Nation – On Occupational Fraud and Abuse, Association of Certified Fraud Examiners, Austin, TX. , [Google Scholar](#)
- Adeoye, A. A. (2013). The Key Challenges of the Corporate Governance of Firms: Empirical Evidence from Sub-Saharan African Anglophone (SSAA) Countries. Brunel University London, UK. Retrieved from <http://eprints.abuad.edu.ng/174/>
- Aggarwal, R., Erel, I., Stulz, R., & Williamson, R. (2008). Differences in governance practices between US and foreign firms: Measurement, causes, and consequences. *The Review of Financial Studies*, 22(8), 3131-3169.
- Aghaei Chadegani, A. (2011). Review of studies on audit quality. 2011 International Conference on Humanities, Society and Culture IPEDR Vol.20 (2011)
- Agrawal, A., & Chadha, S. (2005). Corporate governance and accounting scandals. *The Journal of Law and Economics*, 48(2), 371-406.
- Agyei-Mensah, B. K. (2013). Adoption of international financial reporting standards (IFRS) in Ghana and the quality of financial statement disclosures. *Macrothink Institute, International Journal of Accounting and Financial Reporting*, 3(2), 269-286
- Ahmad, H. N. (2015). Internal Audit (IA) Effectiveness: Resource-Based and Institutional Perspectives. *Australian Journal of Basic and Applied Sciences*, 9(9), 95-104.
- Ahmadi, A., & Bouri, A. (2016). Insights into the Accounting Conservatism Literature: A Selective Criteria Analyzing. *Global Journal of Management And Business Research*, 16(2), 1-7

- Ahmed, A.S. & Duellman, S. (2007). Accounting conservatism and board of director characteristics: An empirical analysis. *Journal of Accounting and Economics* 43(2-3): 411-437.
- Ahmed, A.S., Billings Bruce, K., Morton, R. M., & Stanford-Harris, M. (2002). The role of accounting conservatism in mitigating bondholder-shareholder conflicts over dividends policy and in reducing debt costs. *The Accounting Review*, 77(4), 867-890.
- Ahn, S. C., & Schmidt, P. (1995). Efficient estimation of models for dynamic panel data. *Journal of econometrics*, 68(1), 5-27.
- Aier, J. K., Comprix, J., Gunlock, M. T., & Lee, D. (2005). The financial expertise of CFOs and accounting restatements. *Accounting Horizons*, 19(3), 123-135.
- Ajekwe, C. C., & Ibiamke, A. (2017). The association between audit quality and earnings management by listed firms in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 5(4), 1-11.
- Alao, B. B., & Gbolagade, O. L. (2019). The Influence of Audit Quality on Earnings Management among Listed Oil and Gas Companies in Nigeria. *International Journal of Academic and Applied Research*, 3(11), 52-61
- Albuquerque, F., Rodrigues, N., Quirós, J. T., & Justino, M. D. R. F. (2019). The conservatism as a cultural value that underlies the financial reporting: Empirical evidence from listed companies in European regulated markets. *Contaduría y administración*, 64(2), 11.
- Alhadab, M., & Clacher, I. (2017). The impact of audit quality on real and accrual earnings management around IPOs. *The British Accounting Review*, 50(4), 442-461
- Alharahsheh, H., & Pius, A. (2020). A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), 39-43.
- Ali, U., Noor, M., Khurshid, M. K., & Mahmood, A. (2015). Impact of firm size on earnings management: A study of textile sector of Pakistan. *European Journal of Business and Management*, 7(28), 47-56
- Almarayeh, T. S., Aibar-Guzmán, B., & Abdullatif, M. (2020). Does audit quality influence earnings management in emerging markets? Evidence from Jordan. *Revista de Contabilidad-Spanish Accounting Review*, 23(1), 64-74.
- Alsharairi, M. (2012). Does high leverage impact earnings management? Evidence from non-cash mergers and acquisitions. *Alsharairi, M. and Salama, A.(2012). Does High Leverage Impact Earnings Management*, 17-33.
- Alvesson, M., & Spicer, A. (2019). Neo-institutional theory and organization studies: a mid-life crisis?. *Organization Studies*, 40(2), 199-218.

- Alzoubi, E. S. S. (2016). Audit quality and earnings management: evidence from Jordan. *Journal of Applied Accounting Research*, 17(2), 170-189.
- Alzoubi, E. S. S. (2018). Audit quality, debt financing, and earnings management: Evidence from Jordan. *Journal of International Accounting, Auditing and Taxation*, 30, 69-84
- Alzoubi, E. S. S. (2018). Audit quality, debt financing, and earnings management: Evidence from Jordan. *Journal of International Accounting, Auditing and Taxation*, 30, 69-84.
- Amidu, M., Coffie, W., & Acquah, P. (2019). Transfer pricing, earnings management and tax avoidance of firms in Ghana. *Journal of Financial Crime*.
- An, Y. (2015). Does foreign ownership increase financial reporting quality?. *Asian Academy of Management Journal*, 20(2), 81-101
- Anderson, T. W., & Hsiao, C. (1981). Estimation of dynamic models with error components. *Journal of the American statistical Association*, 76(375), 598-606.
- Arachi, G., & Bucci, V. (2019). The role of taxes in earnings management: evidence from writedowns of long-term equity investments. *Finanzarchiv, forthcoming*.
- Ardison, K. M. M., Martinez, A. L., & Galdi, F. C. (2012). The effect of leverage on earnings management in Brazil. *Advances in Scientific and Applied Accounting*, 5(3), 305-324.
- Aregbeshola, R. A. (2016). The role of local financial market on economic growth: A sample of three African economic groupings. *African Journal of Economic and Management Studies*, 7(2), 225-240.
- Arioglu, E. (2020). Upper Echelons Theory, Conservative Chairmen and Informative Earnings Management. *Conservative Chairmen and Informative Earnings Management (August 21, 2020)*.
- Arellano, M., & Bond, S. (1991). Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *The Review of Economic Studies*, 58, 277-297.
- Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of econometrics*, 68(1), 29-51.
- As' Ad, S. (2019). The Role of Investor Protection Moderation in the effect of Corporate Governance on Earnings Quality. *Russian Journal of Agricultural and Socio-Economic Sciences*, 86(2), 177-188
- Asongu, S. A., & Acha-Anyi, P. N. (2019). The murder epidemic: A global comparative study. *International Criminal Justice Review*, 29(2), 105-120.
- Ayogu M. (2001) corporate governance in Africa: The record and policies for good corporate governance. *African Development Review* 13(2).

- Baik, B., Brockman, P. A., Farber, D. B., & Lee, S. (2018). Managerial Ability and the Quality of Firms' Information Environment. *Journal of Accounting, Auditing & Finance*, 506-527
- Baik, B., Choi, S., & Farber, D. B. (2020). Managerial ability and income smoothing. *The Accounting Review*, 95(4), 1-22.
- Baker, T. A., Lopez, T. J., Reitenga, A. L., & Ruch, G. W. (2019). The influence of CEO and CFO power on accruals and real earnings management. *Review of Quantitative Finance and Accounting*, 52(1), 325-345.
- Ball, R., & Shivakumar, L. (2005). Earnings quality in UK private firms: comparative loss recognition timeliness. *Journal of accounting and economics*, 39(1), 83-128.
- Ball, R., Kothari, S. P., & Robin, A. (2000). The effect of international institutional factors on properties of accounting earnings. *Journal of accounting and economics*, 29(1), 1-51.
- Baltagi, B. H. (1995). *Econometric analysis of panel data* (Vol. 2). New York: Wiley.
- Bamber, L. S., Jiang, J., & Wang, I. Y. (2010). What's my style? The influence of top managers on voluntary corporate financial disclosure. *The accounting review*, 85(4), 1131-1162.
- Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization studies*, 18(1), 93-117.
- Barth, M. E., Elliott, J. A., & Finn, M. W. (1999). Market rewards associated with patterns of increasing earnings. *Journal of Accounting Research*, 37(2), 387-413.
- Bassouyouny, H., Abdelfattah, T., & Tao, L. (2020). Beyond narrative disclosure tone: The upper echelons theory perspective. *International Review of Financial Analysis*, 70, 1-13
- Basu, S. (1997). The Conservatism Principle and the Asymmetric Timeliness of Earnings. *Journal of Accounting and Economics* 24 (1), 3-27.
- Beaver, W. H., & Ryan, S. G. (2005). Conditional and unconditional conservatism: Concepts and modeling. *Review of accounting studies*, 10(2-3), 269-309.
- Bebchuk, L. A., Fried, J. M., & Walker, D. I. (2002). *Managerial power and rent extraction in the design of executive compensation* (No. w9068). National bureau of economic research.
- Becker, C. L., DeFond, M. L., Jiambalvo, J., & Subramanyam, K. R. (1998). The effect of audit quality on earnings management. *International Reviews of Immunology*, 16, 1-24.
- Bell, J. (2014). *Doing Your Research Project: A guide for first-time researchers*, McGraw-Hill Education (UK).
- Beneish, M. D. (2001). Earnings management: A perspective. *Managerial Finance*, 27(12), 3-17.
- Berle, A. and Means, G. (1932): *The Modern Corporation and Private Property*, Macmillan, New York.
- Bhattacharya, U., Daouk, H., & Welker, M. (2003). The world price of earnings opacity. *The Accounting Review*, 78(3), 641-678.

- Bliss, J. H. (1924). *Management through accounts*. Ronald Press Company.
- Bloland, P., & MacNeil, A. (2019). Defining & assessing the quality, usability, and utilization of immunization data. *BMC public health*, 19(1), 380.
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of econometrics*, 87(1), 115-143.
- Bond, S.R., Hoeffler, A. & Temple, J.R. (2001). GMM estimation of empirical growth models. *CEPR Discussion Papers/Centre for Economic Policy Research Discussion Papers*. Available at <http://kops.uni-konstanz.de/handle/123456789/46212>
- Boolaky, P. K., Tawiah, V., & Soobaroyen, T. (2020). Why Do African Countries Adopt IFRS? An Institutional Perspective. *The International Journal of Accounting*, 55(01), 2050005.
- Borlea, S. N., & Achim, M. V. (2013). Theories of corporate governance. *Studia Universitatis Vasile Goldis Arad*, 23(1), 117-128.
- Bozzi, S., Barontini, R., & Miroshnychenko, I. (2017). Investor protection and CEO compensation in family firms. *Corporate Ownership and Control*, 14(2), 17-29.
- Brockman, P., Campbell, J. L., Lee, H. S. G., Salas, J. M., Christensen, J. C., Davidson, O., ... & Steele, L. (2018). CEO experience and financial reporting quality: Evidence from management forecasts.
- Bratten, B., Causholli, M., & Omer, T. C. (2019). Audit firm tenure, bank complexity, and financial reporting quality. *Contemporary Accounting Research*, 36(1), 295-325.
- Bun, M. J., Sarafidis, V., & Baltagi, B. H. (2013). Oxford Handbook of Panel Data.
- Bushee, B. J., Goodman, T. H., & Sunder, S. V. (2019). Financial reporting quality, investment horizon, and institutional investor trading strategies. *The Accounting Review*, 94(3), 87-112.
- Bushman, R. M., & Piotroski, J. D. (2006). Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of accounting and economics*, 42(1-2), 107-148.
- Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency? *Journal of accounting research*, 42(2), 207-252.
- Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2011). Capital allocation and timely accounting recognition of economic losses. *Journal of Business Finance & Accounting*, 38(1-2), 1-33.
- Busirin, M. F., Azmi, N. A., & Zakaria, N. B. (2015). How Effective is Board Independence to the Monitoring of Earnings Manipulation?. *Procedia Economics and Finance*, 31, 462-469.

- Butler, M., Leone, A. J., & Willenborg, M. (2004). An empirical analysis of auditor reporting and its association with abnormal accruals. *Journal of Accounting and Economics*, 37(2), 139-165.
- Byard, D., Li, Y., & Weintrop, J. (2006). Corporate governance and the quality of financial analysts' information. *Journal of Accounting and Public policy*, 25(5), 609-625.
- Call, A. C., Campbell, J. L., Dhaliwal, D. S., & Moon Jr, J. R. (2017). Employee quality and financial reporting outcomes. *Journal of Accounting and Economics*, 64(1), 123-149.
- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of management Review*, 32(3), 946-967.
- Caramanis, C., & Lennox, C. (2008). Audit effort and earnings management. *Journal of accounting and economics*, 45(1), 116-138.
- Chakroun, R., & Hussainey, K. (2014). Disclosure quality in Tunisian annual reports. *Corporate Ownership and Control*, 11(4), 58-80.
- Charreaux, G. (2004). Corporate governance theories: From micro theories to national systems theories.
- Chen, C. C. S., Chou, Y. Y., & Wei, P. (2020). Country factors in earnings management of ADR firms. *Finance Research Letters*, 32, 101-146.
- Chen, F., Hope, O. K., Li, Q., & Wang, X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets. *The accounting review*, 86(4), 1255-1288.
- Chen, T. (2015). Institutions, board structure, and corporate performance: Evidence from Chinese firms. *Journal of Corporate Finance*, 32, 217-237.
- Cheng, Q., Lee, J., & Shevlin, T. (2015). Internal governance and real earnings management. *The accounting review*, 91(4), 1051-1085.
- Chih, H. L., Shen, C. H., & Kang, F. C. (2008). Corporate social responsibility, investor protection, and earnings management: Some international evidence. *Journal of Business Ethics*, 79(1), 179-198.
- Choi, A., Choi, J. H., & Sohn, B. C. (2018). The joint effect of audit quality and legal regimes on the use of real earnings management: International evidence. *Contemporary Accounting Research*, 35(4), 2225-2257.
- Choi, J. H., Kim, J. B., Liu, X., & Simunic, D. A. (2008). Audit pricing, legal liability regimes, and big 4 premiums: Theory and cross-country evidence. *Contemporary Accounting Research*, 25(1), 55-99.
- Choi, T. H. & Pae, J. (2011). Business Ethics and Financial Reporting Quality: Evidence from Korea. *Journal of Business Ethics*, 103, 403-427.

- Choi, W., Han, S., Jung, S. H., & Kang, T. (2015). CEO's operating ability and the association between accruals and future cash flows. *Journal of Business Finance & Accounting*, 42(5-6), 619-634.
- Choudhary, P., Merkley, K., & Schipper, K. (2019). The last chance to improve financial reporting reliability: Evidence from recorded and waived audit adjustments. *Available at SSRN 3112957*.
- Chua, W. F. (2019). Radical developments in accounting thought? Reflections on positivism, the impact of rankings and research diversity. *Behavioral Research in Accounting*, 31, 3-20.
- Cimini, R., Mechelli, A., & Sforza, V. (2020). Auditor independence and value relevance in the European banking sector: Do investor protection environment and corporate governance matter?. *Journal of Accounting, Auditing & Finance*, 0148558X20934247.
- Cohen J., Krishnamoorthy G. & Wright A. (2004). The Corporate Governance Mosaic and Financial Reporting Quality, *Journal of Accounting Literature*, 87-152)
- Cohen, D. A. (2003). *Quality of financial reporting choice: Determinants and economic consequences*. Kellogg School of Management. Wvanston IL.
- Cohen, D. A., & Zarowin, P. (2007). Earnings management over the business cycle. *New York University/Stern School of Business*.
- Cohen, J. R., Krishnamoorthy, G. & Wright, A. M. (2008). Form versus substance: The implications for auditing practice and research of alternative perspectives on corporate governance. *Auditing: A Journal of Practice & Theory*, 27(2), 181-198.
- Conrad, J., Cornell, B., & Landsman, W. R. (2002). When is bad news really bad news?. *The Journal of Finance*, 57(6), 2507-2532.
- Damak, S. (2019). Interpretivism in Combination with the Analysis of Transitivity: Towards an Interdisciplinary Approach to Academic Research in Cultural Studies. *Image Journal: Semiotic Studies and Discourse Analysis*, 1, 123-147.
- Dargenidou, C., McLeay, S., & Raonic, I. (2007). Ownership, investor protection and earnings expectations. *Journal of Business Finance & Accounting*, 34(1-2), 247-268.
- Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of accounting research*, 46(5), 1085-1142.
- Davidson, R. A., & Neu, D. (1993). A note on the association between audit firm size and audit quality. *Contemporary accounting research*, 9(2), 479-488.
- Davidson, S., Stickney, C., & Weil, R. (1987). Accounting: The language of business. Thomas Horton and Daughter. *Sun Lakes Arizona*.

- Davies, M. B., & Hughes, N. (2014). *Doing a successful research project: Using qualitative or quantitative methods*. Macmillan International Higher Education.
- Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997). Toward a Stewardship Theory of Management. *Academy of Management Review*, 22, 20-47
- DeAngelo, H., DeAngelo, L., & Skinner, D. J. (1996). Reversal of fortune dividend signaling and the disappearance of sustained earnings growth. *Journal of financial Economics*, 40(3), 341-371.
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183-199.
- DeAngelo, L. E. (1986). Accounting numbers as market valuation substitutes: A study of management buyouts of public stockholders. *The accounting review*, 61(3), 400.
- de Castro Gonçalves, T. J., Pires, A. R., Pinho, C. M. D., & de Araújo Januário, A. H. (2020). No Brasil, Conservadorismo Contábil Ainda é Discutido?/In Brazil, Accounting Conservatism is Still Discussed?. *Revista FSA (Centro Universitário Santo Agostinho)*, 17(7), 89-113.
- Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The accounting review*, 77(s-1), 35-59.
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *Accountin Review*, 193-225.
- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of accounting and economics*, 50(2-3), 344-401.
- DeFond, M. L., & Subramanyam, K. R. (1998). Auditor changes and discretionary accruals. *Journal of accounting and Economics*, 25(1), 35-67.
- DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2), 275-326.
- Demerjian, P., Lewis-Western, M., & McVay, S. (2020). How does intentional earnings smoothing vary with managerial ability?. *Journal of Accounting, Auditing & Finance*, 35(2), 406-437.
- Demerjian, P., Lev, B., & McVay, S. (2012). Quantifying managerial ability: A new measure and validity tests. *Management science*, 58(7), 1229-1248.
- Demerjian, P. R., Lev, B., Lewis, M. F., & McVay, S. E. (2013). Managerial ability and earnings quality. *The Accounting Review*, 88(2), 463-498.
- Depoers, F., & Jérôme, T. (2019). Coercive, normative, and mimetic isomorphisms as drivers of corporate tax disclosure. *Journal of Applied Accounting Research*.

- Desai, M. A., & Dharmapala, D. (2009). Earnings management, corporate tax shelters, and book-tax alignment. *National Tax Journal*, 169-186.
- Dietrich, J.R., Muller, K.A., & Riedl, E.J., (2007). Asymmetric timeliness tests of accounting conservatism. *Review of Accounting Studies* 12(1), 95-142.
- DiMaggio, P., & Powell, W. W. (1983). The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Ding, S., Liu, M., & Wu, Z. (2016). Financial reporting quality and external debt financing constraints: the case of privately held firms. *Abacus*, 52(3), 351-373.
- Doidge, C., Karolyi, G. A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance?. *Journal of financial economics*, 86(1), 1-39.
- Dou, Y., Wong, M. F., & Xin, B. (2019). The effect of financial reporting quality on corporate investment efficiency: Evidence from the adoption of SFAS No. 123R. *Management Science*, 65(5), 2249-2266.
- Doupnik, T. S. (2008). Influence of culture on earnings management: A note. *Abacus*, 44(3), 317-340.
- Draief, S. (2019). Earnings Management Incentives and the Pricing of Discretionary Accruals. *International Journal of Business and Management*, 14(7).
- Dye, R. A. (1993). Discussion: Limiting auditors' liability. *Journal of Economics & Management Strategy*, 2(3), 435-443.
- Eriksson, P., & Kovalainen, A. (2015). *Qualitative methods in business research: A practical guide to social research*. Sage.
- Ewert, R., & Wagenhofer, A. (2019). Effects of increasing enforcement on financial reporting quality and audit quality. *Journal of Accounting Research*, 57(1), 121-168.
- Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of financial economics*, 33(1), 3-56.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325.
- Fang, F., Tan, P., & Gao, M. (2016). Can Minority Investor Protection Restrain Earnings Management?: An Empirical Test of China's Listed Companies. *International review of business*, (16), 33-47.
- Farda, M. A., Vakilifard, H., & Nikoumarama, H. (2020). The Impact of Audit Quality on Earnings Management: An Experimental Study with Evidence from IPO.

- Fathi, J. (2013). The determinants of the quality of financial information disclosed by French listed companies. *Mediterranean Journal of Social Sciences*, 4(2), 319-319.
- Feltham, G. A., & Ohlson, J. A. (1995). Valuation and clean surplus accounting for operating and financial activities. *Contemporary accounting research*, 11(2), 689-731.
- Feng, M., Ge, W., Luo, S., & Shevlin, T. (2011). Why do CFOs become involved in material accounting manipulations?. *Journal of accounting and economics*, 51(1-2), 21-36.
- Ferracuti, E., & Stubben, S. R. (2019). The role of financial reporting in resolving uncertainty about corporate investment opportunities. *Journal of Accounting and Economics*, 68(2-3), 101248.
- Ferrero, J. M. (2014). Consequences of financial reporting quality on corporate performance: Evidence at the international level. *Estudios de economía*, 41(1), 49-88.
- Filip, A., & Raffournier, B. (2014). Financial crisis and earnings management: The European evidence. *The International Journal of Accounting*, 49(4), 455-478.
- Firoozi, M., Magnan, M., & Fortin, S. (2016). *Board Diversity and Financial Reporting Quality*. CIRANO.
- Fochmann, M., Kölle, T., Mohr, P., & Rockenbach, B. (2020). Trust them, threaten them, or lure them? Effective audit systems to promote compliance. *Effective Audit Systems to Promote Compliance (July 7, 2020)*.
- Francis, J. R., & Wang, D. (2008). The joint effect of investor protection and Big 4 audits on earnings quality around the world. *Contemporary accounting research*, 25(1), 157-191.
- Francis, J. R., Maydew, E. L., & Sparks, H. C. (1999). The role of Big 6 auditors in the credible reporting of accruals. *Auditing: a Journal of Practice & Theory*, 18(2), 17-34.
- Francis, J., Huang, A. H., Rajgopal, S., & Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research*, 25(1), 109-147.
- García-Osma, B., Gill de Albornoz Nogue, B., & Gisbert Clemente, A. (2005). La investigación sobre earnings managements. *Revista española de financiación y contabilidad*, 34(127), 1001-1033.
- García-Meca, E., & García-Sánchez, I. M. (2018). Does managerial ability influence the quality of financial reporting?. *European Management Journal*, 36(4), 544-557
- García-Sánchez, I. M., & Noguera-Gámez, L. (2018). Institutional investor protection pressures versus firm incentives in the disclosure of integrated reporting. *Australian Accounting Review*, 28(2), 199-219.
- Geiger, M. A., & North, D. S. (2006). Does hiring a new CFO change things? An investigation of changes in discretionary accruals. *The Accounting Review*, 81(4), 781-809.

- Gerayli, M. S., Yanesari, A. M., & Ma'atoofi, A. R. (2011). Impact of audit quality on earnings management: evidence from Iran. *International Research Journal of Finance and Economics*, 66(1), 77-84.
- Gichuru, M. J. (2018). The interpretive research paradigm: A critical review of is research methodologies. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 4(2), 1-5.
- Giddens, A. (1986). *The constitution of society: Outline of the theory of structuration* (Vol. 349). Univ of California Press.
- Gill-de-Albornoz, B., & Rusanescu, S. (2018). Foreign ownership and financial reporting quality in private subsidiaries. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 47(2), 181-213.
- Givoly, D. Hayn, C., and Natarajan, A. (2007). Measuring reporting conservatism. *Accounting Review* 82(1), 65-106.
- Golden, J., & Kohlbeck, M. J. (2020). Financial Reporting Consequences of CEOs' Early-life Exposure to Disasters and Violent Crime. *Available at SSRN 3573138*.
- Goncharov, I., & Zimmermann, J. (2005). Earnings management when incentives compete: the role of tax accounting in Russia. University of Bremen.
- González, J. S., & García-Meca, E. (2014). Does corporate governance influence earnings management in Latin American markets?. *Journal of Business Ethics*, 121(3), 419-440.
- Goodwin-Stewart, J., & Kent, P. (2006). Relation between external audit fees, audit committee characteristics and internal audit. *Accounting & Finance*, 46(3), 387-404.
- Gounopoulos, D., & Pham, H. (2018). Specialist CEOs and IPO survival. *Journal of Corporate Finance*, 48, 217-243.
- Grossman, S. J., & Hart, O. D. (1986). The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of political economy*, 94(4), 691-719.
- Gu, S., Prah, G. J., & Tenkorang, K. K. (2019). Consequences of International Financial Reporting Standards Adoption in Africa: Evidence From Foreign Direct Investment.
- Guenther, D. A. (1994). Earnings management in response to corporate tax rate changes: Evidence from the 1986 Tax Reform Act. *Accounting Review*, 230-243.
- Gujarati, D. N. & Porter, D. C. (2010). *Essentials of Econometrics*. 4th Ed, McGraw-Hill, New York, NY.
- Guiso, L., Sapienza, P., & Zingales, L. (2006). Does culture affect economic outcomes?. *Journal of Economic Perspectives*, 20(2), 23-48.

- Gul, F. A., Fung, S. Y. K., & Jaggi, B. (2009). Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. *Journal of Accounting and Economics*, 47(3), 265-287.
- Guo, J., Huang, P., Zhang, Y., & Zhou, N. (2015). Foreign ownership and real earnings management: Evidence from Japan. *Journal of International Accounting Research*, 14(2), 185-213.
- Habbash, M., & Alghamdi, S. (2017). Audit quality and earnings management in less developed economies: the case of Saudi Arabia. *Journal of Management & Governance*, 21(2), 351-373.
- Habib, A., Bhuiyan, M. B. U., & Hasan, M. M. (2019). IFRS adoption, financial reporting quality and cost of capital: a life cycle perspective. *Pacific Accounting Review*, 31(3), 497-522
- Hair, J. F., Page, M., & Brunsveld, N. (2019). *Essentials of business research methods*. Routledge.
- Halabi, H., Alshehabi, A., & Zakaria, I. (2019). Informal institutions and managers' earnings management choices: Evidence from IFRS-adopting countries. *Journal of Contemporary Accounting & Economics*, 15(3), 100162.
- Hajizadeh, S., & Rahimi, M. (2012). Audit Firm Size and Information Content of Earnings: New Evidences from Iran. *International Bulletin of Business Administration*, 13, 58-65.
- Hakim, F., & Omri, M. A. (2010). Quality of the external auditor, information asymmetry, and bid-ask spread: case of the listed Tunisian firms. *International Journal of Accounting & Information Management*, 18(1), 5-18.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of management review*, 9(2), 193-206.
- Hambrick, D. C. (2007). Upper echelons theory: An update.
- Han, S., Kang, T., Salter, S., & Yoo, Y. K. (2010). A cross-country study on the effects of national culture on earnings management. *Journal of International Business Studies*, 41(1), 123-141.
- Hansen, L. P. (1982). Large sample properties of generalized method of moments estimators. *Econometrica: Journal of the Econometric Society*, 1029-1054.
- Hart, O. (1995). Corporate governance: some theory and implications. *The economic journal*, 105(430), 678-689.
- Hashim, H. A. (2012). The influence of culture on financial reporting quality in Malaysia. *Asian Social Science*, 8(13), 192.
- Hassan, S. U., & Farouk, M. A. (2014). Firm attributes and earnings quality of listed oil and gas companies in Nigeria. *Review of Contemporary Business Research*, 3(1), 99-114.

- Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of accounting and economics*, 7(1-3), 85-107.
- Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting horizons*, 13(4), 365-383.
- Herath, S. K., & Albarqi, N. (2017). Financial reporting quality: A literature review. *International Journal of Business Management and Commerce*, 2(2), 1-14.
- Hermalin, B. E., & Weisbach, M. S. (1998). Endogenously chosen boards of directors and their monitoring of the CEO. *American Economic Review*, 96-118.
- Hesarzadeh, R. (2019). Are the individual and collective roles of financial reporting quality measures the same? Evidence in the context of information uncertainty. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 48(2), 160-202.
- Hofstede, G. (1980). Culture's consequences: international differences in work-related values. Beverly: Sage.
- Holthausen, R. W. (2003). Testing the relative power of accounting standards versus incentives and other institutional features to influence the outcome of financial reporting in an international setting. *Journal of Accounting and Economics*, 36(1-3), 271-283.
- Holthausen, R. W., & Leftwich, R. W. (1983). The economic consequences of accounting choice implications of costly contracting and monitoring. *Journal of accounting and economics*, 5, 77-117.
- Holtz, L., & Sarlo Neto, A. (2014). Effects of board of directors' characteristics on the quality of accounting information in Brazil. *Revista Contabilidade & Finanças*, 25(66), 255-266.
- Holtz-Eakin, D., Newey, W., & Rosen, H. S. (1988). Estimating vector autoregressions with panel data. *Econometrica*, 56, 1371-1395.
- Hope, O. K. (2003). Disclosure practices, enforcement of accounting standards, and analysts' forecast accuracy: An international study. *Journal of accounting research*, 41(2), 235- 272.
- Houqe, M.N., Zijl, T. V., Dunstan, K., & Karim, A.K.M.W., (2012). The Effect of IFRS Adoption and Investor Protection on Earnings Quality Around the World. *The International Journal of Accounting*, 47, 333-355. Available online at www.sciencedirect.com
- Hribar, P., Kravet, T., & Wilson, R. (2014). A new measure of accounting quality. *Review of Accounting Studies*, 19(1), 506-538.
- Huang, H. W., Rose-Green, E., & Lee, C. C. (2012). CEO age and financial reporting quality. *Accounting Horizons*, 26(4), 725-740.
- Huijgen, C., & Lubberink, M. (2005). Earnings conservatism, litigation and contracting: The case of cross-listed firms. *Journal of Business Finance & Accounting*, 32(7-8), 1275-1309.

- Husseinalli, A., Fah, C. F., Ramadili, S.M., & Chowdury, T.H.S., (2016). Corporate Governance Reforms and Financial Reporting Quality at Middle East Stock Markets. *International Journal of Economics, Commerce and Management*, 4(1), 121-138
- Iatridis, G. E. (2012). Audit quality in common-law and code-law emerging markets: evidence on earnings conservatism, agency costs and cost of equity. *Emerging Markets Review*, 13(2), 101-117.
- IFRS, C. (2018). Conceptual framework for financial reporting. *IFRS Foundation*.
- Institute of Chartered Accountants England and Wales (2010). Audit quality: challenges for international consistency. http://www.icaew.com/en/technical/audit-and-assurance/audit-quality-forumaqf/~/_media/44d1447de9ec4bc48142ee59144fdd1e.ashx
- Irshaidat, R. (2019). Interpretivism vs. Positivism in Political Marketing Research. *Journal of Political Marketing*, 1-35.
- Irwandi, S. A., & Pamungkas, I. D. (2020). Determinants of financial reporting quality: Evidence from Indonesia. *Journal of International Studies*, 13(2), 23-53
- Isaboke, C. M., & Naziri, A. (2018). Role of audit quality, political connections and investor protection on discretionary accruals in China. *Research Journal of Finance and Accounting*, 9(5), 1-13
- Isidro, H., Nanda, D., & Wysocki, P. D. (2020). On the relation between financial reporting quality and country attributes: Research challenges and opportunities. *The Accounting Review*, 95(3), 279-314.
- Ismail, I., Shafie, R., & Ismail, K. N. I. K. (2020). Current Trends and Future Directions on Women CEOs/CFOs And Financial Reporting Quality. *The Journal Of Asian Finance, Economics, and Business*, 7(11), 679-687.
- Ismayil, A. (2020). Effects of Audit Quality on Earnings Management in listed Swedish Companies. Master Degree at University West, School of Business
- Izi, R., Garkaz, M., Sayeedi, P., & Matoufi, A. (2020). Examining financial information reporting and behavior of listed companies in Iran. *Journal of Management Development*.
- Jaba, E., Robu, I. B., & Balan, C. B. (2017). Panel data analysis applied in financial performance assessment. *Romanian Statistical Review*, (2), 3-21
- Jaja, S. A., Gabriel, J. M. O., & Wobodo, C. C. (2019). Organizational isomorphism: The quest for survival. *Noble International Journal of Business and Management Research*, 3(5), 86-94.
- Jelinek, K. (2007). The effect of leverage increases on earnings management. *The Journal of Business and Economic Studies*, 13(2), 24.

- Jensen, M C and Meckling, W H (1976): “Theory of the Firm: Managerial Behaviour, Agency Costs, and Ownership Structure”, *Journal of Financial Economics*, 3, 305-350.
- Jeong, S. W., & Rho, J. (2004). Big Six auditors and audit quality: The Korean evidence. *The International Journal of Accounting*, 39(2), 175-196.
- Jiang, J. X., Petroni, K. R., & Wang, I. Y. (2010). CFOs and CEOs: Who have the most influence on earnings management?. *Journal of Financial Economics*, 96(3), 513-526.
- Jiang, J., Wang, I. Y., & Wang, K. P. (2019). Big N auditors and audit quality: New evidence from quasi-experiments. *The Accounting Review*, 94(1), 205-227.
- Johl, S., Jubb, C. A., & Houghton, K. A. (2007). Earnings management and the audit opinion: Evidence from Malaysia. *Managerial Auditing Journal*, 22(7), 688-715.
- Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research*, 29 (2), 193-228.
- Jordan, C. E., Clark, S. J., & Hames, C. C. (2010). The impact of audit quality on earnings management to achieve user reference points in EPS. *Journal of Applied Business Research*, 26(1), 19.
- Jui, L., & Wong, J. (2013). Roles and importance of professional accountants in business. *Prieiga per Internetą*:< <http://www.ifac.org/news-events/2013-10/roles-and-importanceprofessional-accountants-business>> [žiūrėta 2014 03 23].
- Junaidu, A. S., & Oladele, J. U. O. (2018). Firm Size and Audit Quality on Earnings Management of Quoted Oil and Gas Marketing Companies in Nigeria. *Asian Journal of Multidisciplinary Studies*, 6, 12.
- Kabir, H., Su, L., & Rahman, A. (2016). Audit failure of New Zealand finance companies—An exploratory investigation. *Pacific Accounting Review*, 28(3), 279-305
- Kalkhouran, A. A. N., Nedaei, B. H. N., & Rasid, S. Z. A. (2017). The indirect effect of strategic management accounting in the relationship between CEO characteristics and their networking activities, and company performance. *Journal of Accounting & Organizational Change*, 13(4), 471-491
- Kalyani, S., Mathur, N., & Gupta, P. (2019). Does Corporate Governance Affect the Financial Performance and Quality of Financial Reporting of Companies? A Study on Selected Indian Companies. In *Business Governance and Society* (pp. 105-125). Palgrave Macmillan, Cham.
- Kamarudin, K. A., Ariff, A. M., & Jaafar, A. (2020). Investor protection, cross-listing and accounting quality. *Journal of Contemporary Accounting & Economics*, 16(1), 100179.
- Kabir, H., Su, L., & Rahman, A. (2016). Audit failure of New Zealand finance companies—An exploratory investigation. *Pacific Accounting Review*.

- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2017). Governance matters VIII: aggregate and individual governance indicators, 1996-2016.
- Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8(9), 1-17
- Kekeya, J. (2019). The commonalities and differences between research paradigms. *Contemporary PNG Studies*, 31, 26-36
- Khalil, M., & Ozkan, A. (2016). Board independence, audit quality and earnings management: evidence from Egypt. *Journal of Emerging Market Finance*, 15(1), 84-118.
- Khan, M. & Watts, R. (2009). "Estimation and Empirical Properties of a Firm-Year Measure of Accounting Conservatism". *Journal of Accounting and Economics* 48 (2-3), 132-150.
- Khanh, H. T. M., & Nguyen, V. K. (2018). Audit quality, firm characteristics and real earnings management: The case of listed vietnamese firms. *International Journal of Economics and Financial Issues*, 8(4), 243.
- Khaoula, F., & Moez, D. (2019). The moderating effect of the board of directors on firm value and tax planning: Evidence from European listed firms. *Borsa Istanbul Review*, 19(4), 331-343.
- Kitiwong, W. (2014). *Earnings Management and Audit Quality: Evidence from Southeast Asia* (Doctoral dissertation, University of York).
- Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of accounting and economics*, 33(3), 375-400.
- Kobbi-Fakhfakh, S., Shabou, R. M., & Pigé, B. (2020). Intensive Board Monitoring, Investor Protection and Segment Disclosure Quality: Evidence from EU. *Accounting in Europe*, 17(1), 52-77.
- Koh, K. (2011). Value or glamour? An empirical investigation of the effect of celebrity CEOs on financial reporting practices and firm performance. *Accounting & Finance*, 51(2), 517-547.
- Kolbjørnsrud, V. (2017). Agency problems and governance mechanisms in collaborative communities. *Strategic Organization*, 15(2), 141-173.
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of accounting and economics*, 39(1), 163-197.
- Kouki, A. (2018). Mandatory IFRS adoption, investor protection and earnings management. *International Journal of Accounting & Information Management*, 26(1), 187-204
- Krishnan, J. (2005). Audit committee quality and internal control: An empirical analysis. *The accounting review*, 80(2), 649-675.

- Kuo, N. T., & Lee, C. F. (2019). Earnings Management in Response to Corporate Tax Rate Reduction Under an Imputation Tax System. *The International Journal of Accounting*, 54(01), 1950002.
- Kurawa, J. M., & Aca, A. I. (2020). Audit Quality And Earnings Management of Listed Non-Financial Companies in Nigeria. *Gsj*, 8(7).
- Kurtzman, J., & Yago, G. (2007). *Global edge: Using the Opacity Index to manage the risks of cross-border business*. Harvard Business School Press.
- Kurtzman, J., & Yago, G. (2008). Opacity Index 2007–2008: Measuring Global Business Risks. *Estados Unidos: Milken Institute*.
- Kurtzman, J., Yago, G., & Phumiwasana, T. (2004). The global costs of opacity. *MIT Sloan Management Review*, 46(1), 38.
- Kyereboah-Coleman, A. (2008). Corporate governance and firm performance in Africa: A dynamic panel data analysis. *Studies in Economics and Econometrics*, 32(2), 1-24.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2006). What Works in Securities Laws?, 61 *J. Fin*, 1, 19.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58(1), 3–27.
- Labelle, R., Gargouri, R. M., & Francoeur, C. (2010). Ethics, diversity management, and financial reporting quality. *Journal of Business Ethics*, 93(2), 335-353.
- LaFond, R., & Watts, R. L. (2008). The information role of conservatism. *The Accounting Review*, 83(2), 447-478.
- Lara, J. M. G., & Mora, A. (2004). Balance sheet versus earnings conservatism in Europe. *European Accounting Review*, 13(2), 261-292.
- Larcker, D. F., & Richardson, S. A. (2004). Fees paid to audit firms, accrual choices, and corporate governance. *Journal of Accounting Research*, 42(3), 625-658.
- Le, T. B., Pavelkova, D., Do, T. T. N., & Ngo, M. V. (2017). Does foreign ownership impact accounting conservatism adoption in Vietnam?. *Business and Economic Horizons*, 13(3), 287-294
- Lemma, T. T., Lulseged, A., Mlilo, M., & Negash, M. (2019). Political stability, political rights and earnings management: some international evidence. *Accounting Research Journal*, 33(1), 57-74
- Lennox, C. S. (1999). Audit quality and auditor size: An evaluation of reputation and deep pockets hypotheses. *Journal of Business Finance & Accounting*, 26(7-8), 779-805.
- Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: an international comparison. *Journal of financial economics*, 69(3), 505-527.

- Leverly, J. T., & Grace, M. F. (2012). Dupes or incompetents? An examination of management's impact on firm distress. *Journal of Risk and Insurance*, 79(3), 751-783.
- Li, C., Tseng, Y., & Chen, T. K. (2016). Top management team expertise and corporate real earnings management activities. *Advances in accounting*, 34, 117-132.
- Li, F., & Shroff, N. (2010). Financial reporting quality and economic growth. *Available at SSRN 1265331*.
- Liapis, K. & Thalassinou, I.E. (2013). A Comparative Analysis for the Accounting Reporting of “Employee Benefits” between IFRS and other Accounting Standards: A Case Study for the Biggest Listed Entities in Greece. *International Journal of Economics and Business Administration*, 1(1), 91-116
- Libby, R., & Luft, J. (1993). Determinants of judgment performance in accounting settings: Ability, knowledge, motivation, and environment. *Accounting, organizations and society*, 18(5), 425-450.
- Lin, Z., Jiang, Y., Tang, Q., & He, X. (2014). Does high-quality financial reporting mitigate the negative impact of Global Financial Crises on firm performance? Evidence from the United Kingdom. *Australasian Accounting, Business and Finance Journal*, 8(5), 19-46
- Lopes, A. P. (2018). Audit quality and earnings management: Evidence from Portugal, Athens Journal of Business and Economics, 4(2), 179-192
- Lourenço, I. C., Rathke, A., Santana, V., & Branco, M. C. (2018). Corruption and earnings management in developed and emerging countries. *Corporate Governance: The International Journal of Business in Society*, 18(1), 35-51
- Lubberink, M. J. P., & Huijgen, C. (2006). Earnings conservatism and equity raisings of cross-listed firms. *Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=952221*
- Maama, H. & Mkhize, M. (2020). Integration of Non-Financial Information into Corporate Reporting: A Theoretical Perspective. *Academy of Accounting and Financial Studies Journal*, 24(2), 1-15.
- Maama, H. (2020). Institutional Environment and Environmental, Social and Governance Accounting among banks in West Africa. *Meditari Accountancy Research*, 1-19
- Madawaki, A. (2014). Impact of regulatory framework and environmental factors on accounting practices by firms in Nigeria. *Procedia-Social and Behavioral Sciences*, 164, 282-290.
- Mahboub, R. (2017). Main Determinants of Financial Reporting Quality in the Lebanese Banking Sector. *European Research Studies Journal*, 20(4), 706-726
- Maijor, S. J., & Vanstraelen, A. (2006). Earnings management within Europe: the effects of member state audit environment, audit firm quality and international capital markets. *Accounting and business research*, 36(1), 33-52.

- Malmendier, U., & Tate, G. (2009). Superstar CEOs. *Quarterly Journal of Economics*, 124, 1593-1638.
- Marcoulides, K. M., & Raykov, T. (2019). Evaluation of variance inflation factors in regression models using latent variable modeling methods. *Educational and Psychological Measurement*, 79(5), 874-882.
- Marini, G. (2020). Coercive and mimetic isomorphism as outcomes of authority reconfigurations in French and Spanish academic career systems. *Policy Reviews in Higher Education*, 1-20.
- Markey-Towler, B. (2019). The competition and evolution of ideas in the public sphere: A new foundation for institutional theory. *Journal of Institutional Economics*, 15(1), 27-48.
- Martínez-Ferrero, J., & García-Sánchez, I. M. (2016). Corporate reputation as a consequence of financial reporting quality. *International Management & Economics Frontiers*, 1(1), 45.
- Memis, M. U., & Cetenak, E. H. (2012). Earnings management, audit quality and legal environment: An international comparison. *International Journal of Economics and Financial Issues*, 2(4), 460.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, 83(2), 340-363.
- Mihret, D. G., James, K., & Mula, J. M. (2010). Antecedents and organisational performance implications of internal audit effectiveness: some propositions and research agenda. *Pacific Accounting Review*, 22(3), 224-252.
- Milbourn, T. T. (2003). CEO reputation and stock-based compensation. *Journal of Financial Economics*, 68(2), 233-262.
- Mion, G., & Loza Adai, C. R. (2019). Mandatory nonfinancial disclosure and its consequences on the sustainability reporting quality of Italian and German companies. *Sustainability*, 11(17), 4612.
- Mohammadi, M., Yazdani, S., Khanmohammadi, M. H., & Maham, K. (2020). Financial reporting fraud detection: an analysis of data mining algorithms. *International Journal of Finance & Managerial Accounting*, 4(16), 1-12.
- Monday, I. I., & Nancy, A. (2016). Determinants of voluntary disclosure quality in emerging economies: evidence from firms listed in Nigeria stock exchange. *International Journal of Research in Engineering and Technology*, 4(6), 37-50.
- Muttakin, M. B., Mihret, D., Lemma, T. T., & Khan, A. (2020). Integrated reporting, financial reporting quality and cost of debt. *International Journal of Accounting & Information Management*, 28(3), 517-534

- Nabar, S., & Boonlert-U-Thai, K. K. (2007). Earnings management, investor protection, and national culture. *Journal of International Accounting Research*, 6(2), 35-54.
- Nadhir, Z., & Wardhani, R. (2019). The effect of audit quality and degree of international Financial Reporting Standards (IFRS) convergence on the accrual earnings management in ASEAN countries. *Entrepreneurship and Sustainability Issues*, 7(1), 105-120.
- Nam, J., Sesay, J. B., Wynne, K., & Zhang, G. (2020). Financial efficiency and accounting quality: The impact of institutional micro-factors on FDI. *Journal of Policy Modeling*.
- Neely Jr, B. H., Lovelace, J. B., Cowen, A. P., & Hiller, N. J. (2020). Metacritiques of Upper Echelons Theory: Verdicts and Recommendations for Future Research. *Journal of Management*, 46(6), 1029-1062.
- Newman, D. P., Patterson, E. R., & Smith, J. R. (2005). The role of auditing in investor protection. *The Accounting Review*, 80(1), 289-313.
- Ngamchom, W. (2015). Impact of board effectiveness and shareholders structure on earnings management in Thailand. *Review of Integrative Business and Economics Research*, 4(2), 342.
- Notbohm, M., Campbell, K., Smedema, A. R., & Zhang, T. (2019). Management's personal ideology and financial reporting quality. *Review of Quantitative Finance and Accounting*, 52(2), 521-571.
- Ogbaisi, S. A., Areo, A. B., & Omotayo, V. A. (2019). Board Attributes And Quality Of Financial Reporting In Nigerian Companies: An Empirical Evidence. *Malaysian E Commerce Journal (MECJ)*, 3(2), 01-05.
- Okolie, A. O., Izedonmi, F. O., & Enofe, A. O. (2014). Audit Quality and Cash-Based Earnings Management of Quoted Companies in Nigeria. *Journal of Finance and Investment Analysis*, 3(1), 1-4
- Oliver, C. (1997). Sustainable competitive advantage: combining institutional and resource-based views. *Strategic management journal*, 18(9), 697-713.
- Olubusoye, O. E., & Olajide, J. T. (2016) The Effect of Serial Correlation in Estimating Dynamic Panel data Models, *Journal of Natural Sciences Research*, 6(11), 147-157
- Omoro, N. O. (2020). Top Management Team Diversity and the moderating effect of Discretionary Accounting Choices on Financial Reporting Quality among Commercial State Corporations in Kenya. *Journal of Accounting, Business and Finance Research*, 8(2), 79-89.
- Ostadhashemi, A., Shafati, M., & Aliei, M. (2017). The Effect of the Corporate Governance on Disclosure Quality in Tehran Stock Exchange. *Journal of Administrative Management, Education and Training*, 13(2), 216-226.

- Osundina, J. A., Jayeoba, O. O., & Olayinka, I. M. (2016). Impact of accounting information on stock price volatility (a study of selected quoted manufacturing companies in Nigeria). *International Journal of Business and Management Invention*, 5 (11), 41, 54.
- Özcan, A. (2019). Audit Quality and Earnings Management: Evidence from Turkey. *International Journal of Economic & Administrative Studies*, (23).
- Palea, V. (2013). IAS/IFRS and financial reporting quality: lessons from the European experience. *China Journal of Accounting Research*, 6(4), 247-263.
- Palmrose, Z. V. (1988). 1987 Competitive Manuscript Co-Winner: An analysis of auditor litigation and audit service quality. *Accounting review*, 55-73.
- Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, 10(1), 74-95.
- Panhwar, A. H., Ansari, S., & Shah, A. A. (2017). Post-positivism: An effective paradigm for social and educational research. *International Research Journal of Arts & Humanities (IRJAH)*, 45(45), 253-259
- Paredes, A. A. P., & Wheatley, C. (2017). The influence of culture on real earnings management. *International Journal of Emerging Markets*, 12(1), 38-57
- Park, K. (2018). Financial reporting quality and corporate innovation. *Journal of Business Finance & Accounting*, 45(7-8), 871-894.
- Park, Y. S., Konge, L., & Artino Jr, A. R. (2020). The positivism paradigm of research. *Academic Medicine*, 95(5), 690-694.
- Pathak, J., & Sun, J. (2013). Does investor protection regime affect the effectiveness of outside directorship on the board?. *Journal of Multinational Financial Management*, 23(1-2), 19-33.
- Pavlatos, O., & Kostakis, X. (2018). The impact of top management team characteristics and historical financial performance on strategic management accounting. *Journal of Accounting & Organizational Change*.
- Pavlopoulos, A., Magnis, C., & Iatridis, G. E. (2019). Integrated reporting: An accounting disclosure tool for high quality financial reporting. *Research in International Business and Finance*, 49, 13-40.
- Penman, S. H., & Zhang, X. J. (2002). Accounting conservatism, the quality of earnings, and stock returns. *The accounting review*, 77(2), 237-264.
- Persakis, A., & Iatridis, G. E. (2016). Audit quality, investor protection and earnings management during the financial crisis of 2008: An international perspective. *Journal of International Financial Markets, Institutions and Money*, 41, 73-101.

- Persakis, A., & Iatridis, G. E. (2017). The joint effect of investor protection, IFRS and earnings quality on cost of capital: An international study. *Journal of International Financial Markets, Institutions and Money*, 46, 1-29.
- Peters, B. G. (2019). *Institutional theory in political science: The new institutionalism*. Edward Elgar Publishing.
- Pinto, I., Gaio, C., & Gonçalves, T. (2019). Corporate governance, foreign direct investment, and bank income smoothing in African countries. *International Journal of Emerging Markets*.
- Pope, P., Peasnell, K., & Young, S. (1998). Outside directors, board effectiveness, and earnings management. Available https://papers.ssrn.com/sol3/papers.cfm?abstract_id=125348
- PricewaterhouseCoopers (2017). Understanding a financial statement audit. Retrieved from <https://www.pwc.com/>
- Priscilla, M., & Siregar, S. V. (2020). The Effect of Top Management Team Expertise on Corporate's Accrual and Real Earnings Management. In *Advanced Issues in the Economics of Emerging Markets*. Emerald Publishing Limited.
- Putra, A. A., & Mela, N. F. (2019). Effect of Ownership Types on Informative Earnings Management. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(2), 74-82.
- Rachisan, P. R., Bota-Avram, C., & Grosanu, A. (2017). Investor protection and country-level governance: crosscountry empirical panel data evidence. *Economic research-Ekonomska istraživanja*, 30(1), 806-817.
- Raimo, N., Zito, M., & Caragnano, A. (2019). Does national culture affect integrated reporting quality? A focus on GLOBE dimensions. In *9th International Symposium on Natural Resources Management, May 31st, 2019, Zaječar, Serbia* (pp. 383-392). Belgrade: Megatrend University.
- Rajgopal, S., & Venkatachalam, M. (2011). Financial reporting quality and idiosyncratic return volatility. *Journal of Accounting and Economics*, 51(1), 1-20.
- Rajgopal, S., Srinivasan, S., & Zheng, X. (2015). Measuring audit quality. *Scheller College Business*.
- Rajgopal, S., Srinivasan, S., & Zheng, X. (2019). Measuring audit quality. Available at <https://core.ac.uk/download/pdf/211326795.pdf>
- Rakestraw, J. R. (2020). Investor Protection and the Substitution Effect of Corporate Governance and Product Market Competition on Firm Value. *Journal of Accounting, Auditing & Finance*, 0148558X20936792.
- Raman, K., Shivakumar, L., & Tamayo, A. (2013). Target's earnings quality and bidders' takeover decisions. *Review of Accounting Studies*, 18(4), 1050-1087.

- Rani, P., Hussain, F., & Chand, P. (2013). Managerial incentives for earnings management among listed firms: evidence from Fiji.
- Randriamiarana, J. (2015). The role of accounting in economic development: case of IFRS adoption in Western Africa. *Recherches en Sciences de Gestion*, (5), 61-88.
- Rashid, M. M. (2020). Presence of professional accountant in the top management team and financial reporting quality. *Journal of Accounting & Organizational Change*, 16(2), 237-257
- Reid, L. C., Carcello, J. V., Li, C., Neal, T. L., & Francis, J. R. (2019). Impact of auditor report changes on financial reporting quality and audit costs: Evidence from the United Kingdom. *Contemporary Accounting Research*, 36(3), 1501-1539.
- rene Aderomou, B., & Sall, M. B. (2019). The Minority investor protection and corporate governance practices. *Journal of Academic Finance*, 10(2), 102-117.
- Rika, L., Amri, A., Syahmardi, Y., & Sri, R. (2020). The effect of investor protection based on government quality of earnings quality: an analysis in Indonesia and Singapore, 2(32), 35-475
- Rinaldo, D., & Puspita, V. A. (2020). Independent Parties in Minimizing Agency Problem in Indonesia: An Alternative Model. *HOLISTICA–Journal of Business and Public Administration*, 11(1), 13-28.
- Roychowdhury, S., & Watts, R. L. (2007). Asymmetric timeliness of earnings, market-to-book and conservatism in financial reporting. *Journal of Accounting and Economics*, 44(1-2), 2-31.
- Ruch, G. W., & Taylor, G. (2015). Accounting conservatism: A review of the literature. *Journal of Accounting Literature*, 34, 17-38.
- Rusmin, R. (2010). Auditor quality and earnings management: Singaporean evidence. *Managerial Auditing Journal*, 25(7), 618-638
- Ryan, G. (2018). Introduction to positivism, interpretivism and critical theory. *Nurse researcher*, 25(4), 41-49.
- Ryan, S. G. (2006). Identifying conditional conservatism. *European accounting review*, 15(4), 511-525.
- Saeed, M. B., & Saeed, S. K. (2018). Corporate Governance and Accounting Conservatism: Moderating role of Audit Quality and Disclosure Quality. *Business and Economic Review*, 10(2), 123-150.
- Safkaur, O., Afiah, N. N., Poulus, S., & Dahlan, M. (2019). The Effect of Quality Financial Reporting on Good Governance. *International Journal of Economics and Financial Issues*, 9(3), 277.

- Sala-I-Martin, X. A. V. I. E. R., Crotti, R., DI Battista, A. T. T. I. L. I. O., Hanouz, M. D., Galvan, C., Geiger, T., & Marti, G. (2015). Drivers of Long-Run Prosperity: Laying the Foundations for an Updated Global Competitiveness Index. *The Global Competitiveness Report 2015–2016*, 2.
- Salama, F. M., & Putnam, K. (2015). Accounting conservatism, capital structure, and global diversification. *Pacific Accounting Review*, 27(1), 119-138.
- Salawu, R. O. (2017). Corporate governance and tax planning among non-financial quoted companies in Nigeria. *African Research Review*, 11(3), 42-59.
- Salehi, M., Tagribi, M., & Farhangdoust, S. (2018). The effect of reporting quality on stock returns of listed companies on the Tehran Stock Exchange. *International Journal of Productivity and Performance Management*, 67(1), 4-19.
- Salehi, M., Ziba, N., & Daemi-Gah, A. (2018). The relationship between cost stickiness and financial reporting quality in Tehran Stock Exchange. *International Journal of Productivity and Performance Management*, 67(9), 1550-1565.
- Salmerón, R., García, C. B., & García, J. (2018). Variance inflation factor and condition number in multiple linear regression. *Journal of Statistical Computation and Simulation*, 88(12), 2365-2384.
- Schipper, K. (1989). Earnings management. *Accounting horizons*, 3(4), 91.
- Scott, W. R. (2010). Reflections: The past and future of research on institutions and institutional change. *Journal of change management*, 10(1), 5-21.
- Semba, H. D., & Kato, R. (2019). Does Big N matter for audit quality? Evidence from Japan. *Asian Review of Accounting*, 27(1), 2-28
- Sevestre, P., & Trognon, A. (1985). A note on autoregressive error components models. *Journal of Econometrics*, 28(2), 231-245.
- Shahzad, F., Rehman, I. U., Colombage, S., & Nawaz, F. (2019). Financial reporting quality, family ownership, and investment efficiency: An empirical investigation. *Managerial Finance*, 45(4), 513-535
- Shen, C. H., & Chih, H. L. (2005). Investor protection, prospect theory, and earnings management: An international comparison of the banking industry. *Journal of Banking & Finance*, 29(10), 2675-2697.
- Shoaib, A., & Siddiqui, M. A. (2020). Earning information content changes based on accrual measures and quality measures: Evidences from member countries of Asia Pacific trade agreement. *International Journal of Finance & Economics*.
- Silva, J., & Feiteiro, A. (2019). Stock options plans: Solving agency issues. *Corporate Governance*, (2), 34-45.

- Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports: An international comparison. *The accounting review*, 84(3), 937-967.
- Skinner, D. J., & Srinivasan, S. (2012). Audit quality and auditor reputation: Evidence from Japan. *The Accounting Review*, 87(5), 1737-1765.
- Sun, L. (2020). Accrual mispricing in the era of corporate governance reforms. *Asian Review of Accounting*.
- Susanto, Y. K., Pirzada, K., & Adrianne, S. (2019). Is tax aggressiveness an indicator of earnings management?. *Polish Journal of Management Studies*, 20.
- Svabova, L., Kramarova, K., Chutka, J., & Strakova, L. (2020). Detecting earnings manipulation and fraudulent financial reporting in Slovakia. *Oeconomia Copernicana*, 11(3), 485-508.
- Takhtaei, N., Mousavi, Z., Tamimi, M., & Farahbakhsh, I. (2014). Determinants of disclosure quality: empirical evidence from Iran. *Asian Journal of Finance and Accounting*, 6(2), 422-438.
- Tang, Q., Chen, H., & Lin, Z. (2016). How to measure country-level financial reporting quality?. *Journal of Financial Reporting and Accounting*, 14(2), 230-265.
- Taylor, G., Tower, G., & Neilson, J. (2010). Corporate communication of financial risk. *Accounting & Finance*, 50(2), 417-446.
- Tipurić, D., & Krajnović, A. (2020). The Imitation Game: Are the MNCs Immune to Mimetic Isomorphism?. *InterEULawEast: journal for the international and european law, economics and market integrations*, 7(1), 7-20.
- Tolbert, P. S., & Zucker, L. G. (2019). What are MicroFoundations? Why and How to Study Them?. In *Microfoundations of Institutions*. Emerald Publishing Limited.
- Trigg, R. (1985). *Understanding social science: A philosophical introduction to the social sciences*. Basil Blackwell.
- Tsaruk, V. Y. (2019). Ways to Solve Agency Problems in Corporate Structures with Using Accounting Information: Non-Institutional Aspects. *Innovative Economy*, (7-8), 145-151.
- Tyokoso, G. M. & Tsegba, I. N (2015) Audit Quality and Earnings Management of Listed Oil Marketing Companies in Nigeria.
- Ullah, S., Akhtar, P. & Zaefarian, G. (2018). Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management*, 71, 69-78.
- Uyar, A., Kilic, M., & Bayyurt, N. (2013). Association between firm characteristics and corporate voluntary disclosure: Evidence from Turkish listed companies. *Intangible capital*, 9(4), 1080-1112.

- Van Greuning, H., Scott, D., & Terblanche, S. (2011). *International financial reporting standards: a practical guide*. The World Bank.
- Van Tendeloo, B., & Vanstraelen, A. (2008). Earnings management and audit quality in Europe: Evidence from the private client segment market. *European accounting review*, 17(3), 447-469
- van Wijk, J., Zietsma, C., Dorado, S., De Bakker, F. G., & Marti, I. (2019). Social innovation: Integrating micro, meso, and macro level insights from institutional theory. *Business & Society*, 58(5), 887-918.
- Vinten, G., Chen, K. Y., Lin, K. L., & Zhou, J. (2005). Audit quality and earnings management for Taiwan IPO firms. *Managerial Auditing Journal*, 20(1), 86-104
- Walsh, R. (2019). Fictionality as Rhetoric: A Distinctive Research Paradigm. *Style*, 53(4), 397-425.
- Wang, R. Z., Ó Hogartaigh, C., & van Zijl, T. (2008). Measures of accounting conservatism: A construct validity perspective. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1274044
- Wang, Z., Chen, M. H., Chin, C. L., & Zheng, Q. (2017). Managerial ability, political connections, and fraudulent financial reporting in China. *Journal of Accounting and Public Policy*, 36(2), 141-162.
- Watts, R. L. (2003). Conservatism in accounting part I: Explanations and implications. *Accounting horizons*, 17(3), 207-221.
- Watts, R. L., & Zimmerman, J. L. (1986). *Positive Accounting Theory*. Prentice-Hall Inc.
- Williamson O. E. (1984). Corporate Governance, Yale Law Journal, 93, 1197-1230.
- Withaar, A. (2016). Investor protection and the quality of the board of directors. Available at <https://www.diva-portal.org/smash/get/diva2:905120/FULLTEXT01.pdf>
- Wittenberg-Moerman, R. (2008). The role of information asymmetry and financial reporting quality in debt trading: Evidence from the secondary loan market. *Journal of Accounting and Economics*, 46(2-3), 240-260.
- Yasar, A. (2013). Big Four Auditors' Audit Quality and Earnings Management: Evidence from Turkish Stock Market. *International journal of business and social science*, 4(17).
- Yasser, S., & Soliman, M. (2018). The effect of audit quality on earnings management in developing countries: The case of Egypt. *International Research Journal of Applied Finance*, 9(4), 216-231.
- Young, D., & Guenther, D. A. (2003). Financial reporting environments and international capital mobility. *Journal of Accounting Research*, 41(3), 553-579.

- Yung, K., & Root, A. (2019). Policy uncertainty and earnings management: International evidence. *Journal of Business Research*, 100, 255-267.
- Zandi, G., Sadiq, M., & Mohamad, S. (2019). Big-four auditors and financial reporting quality: evidence from Pakistan. *Humanities & Social Sciences Reviews*, 7(2), 369-375.
- Zengfu, L., & Min, Z. (2017). Legal Investor Protection and Earnings Management Based on Manipulations of Accruals and Real Activities. *Management Review*, 29(2), 221.
- Zhang, D. (2019). Top management team characteristics and financial reporting quality. *The Accounting Review*, 94(5), 349-375.
- Zheng, X., Zhou, S., & An, Y. (2019). A Cross-Country Study of Financial Reporting Quality: Insights and Practical Implications for 13" One Belt One Road" Countries. *Transformations in Business & Economics*, 18.
- Zucker, L. G. (1987). Institutional theories of organization. *Annual review of sociology*, 13(1), 443-464.

APPENDICES

APPENDIX A: ETHICAL CLEARANCE LETTER



23 October 2018

Mr Isaac Marfo Oduro (216076178)
School of Accounting, Economics & Finance
Westville Campus

Dear Mr Oduro,

Protocol reference number: HSS/1839/018D

Project title: Investor Protection, Auditor Quality and Financial Reporting Quality in the Sub Saharan Africa (SSA)

Full Approval – No Risk / Exempt Application

In response to your application received on 04 October 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully


.....
Professor Shenuka Singh (Chair)

/ms

cc Supervisor: Professor Mabutho Sibanda and Dr Samuel K Agyei
cc Academic Leader Research: Professor Josue Mbonigaba
cc School Administrator: Ms Seshni Naidoo

Humanities & Social Sciences Research Ethics Committee
Professor Shenuka Singh (Chair)/Dr Shamila Naidoo (Deputy Chair)
Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3687/8350/4557 Facsimile: +27 (0) 31 260 4009 Email: simibap@ukzn.ac.za / snymnam@ukzn.ac.za / mohune@ukzn.ac.za

Website: www.ukzn.ac.za



100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

APPENDIX B: TURNITIN SIMILARITY REPORT

Investor Protection, Auditor Quality and Financial Reporting Quality in the Sub-Saharan Africa (SSA)

ORIGINALITY REPORT

10%	8%	6%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	ukzn-dspace.ukzn.ac.za Internet Source	2%
2	Haruna Maama. "Institutional environment and environmental, social and governance accounting among banks in West Africa", Meditari Accountancy Research, 2020 Publication	1%
3	www.emeraldinsight.com Internet Source	1%
4	hdl.handle.net Internet Source	<1%
5	Tae Hee Choi, Jinhan Pae. "Business Ethics and Financial Reporting Quality: Evidence from Korea", Journal of Business Ethics, 2011 Publication	<1%
6	www.scielo.cl Internet Source	<1%
7	libsysdigi.library.illinois.edu Internet Source	

<1%

8	Journal of Financial Reporting and Accounting, Volume 14, Issue 2 (2016) Publication	<1%
9	researcharchive.vuw.ac.nz Internet Source	<1%

APPENDIX C: SUBMISSION REQUIREMENTS FOR EXAMINATION

Submission Requirements	Check
Intention to Submit: Submitted and Signed 3 months before submission date.	√
Abstract of 350 words must include 3-5 Keywords.	√
Dissertation Word Count: 20000+ Coursework Masters, 40000+ Research Masters and 80000+ PhD.	√
Title: Sentence format, ensure that title exactly matches Ethical Clearance Form.	√
Signed permission to submit	√
Table of Contents: Auto Populated and reflects correct page numbering.	√
List of Figures and Tables: reflecting Figures' and Tables' Titles and corresponding pages.	√
Text Font: A single style, consistent throughout the dissertation (including footnotes and page numbers). The school prefers Times New Roman or Arial font 12	√
Margins: Standard and consistently applied throughout.	√
Text Spacing: 1.5 line spacing through all normal text. Tables and Figures may be adjusted slightly for ease of readability. One table should not be displayed across two pages	√
Page Numbering: No page number on Title Page; lowercase Roman numerals for Initial Pages including Abstract; Chapter 1 begins with page 1.	√
Page Breaks: Start each chapter on a new page by inserting page breaks immediately before the new Chapter Title (all chapters must have unique Chapter Names).	√
Heading and Subheading Styles: A single consistent style applied throughout.	√
Blank Pages: Check document and remove any blank pages.	√
Proofreading, Spelling and Grammar: A line-by-line check from start to finish has been completed, with spelling, grammar and formatting carefully checked.	√
All sections end with text and not a figure/table	√
Referencing – In text: A single style is used consistency throughout the document:	√
In-text quotes are referenced with page number: Surname (Year: Page)	√
In-text references at the beginning of the sentence format: Surname (Year)	√
In-text references at the end of the sentence format: (Surname, Year)	√
Referencing – Reference List: A single style is used consistently throughout:	√
References List: Books Formatting and Consistency	√
References List: Journal Formatting and Consistency	√
References List: Website Formatting and Consistency	√
References List: Dissertations Formatting and Consistency	√
All required information and available information is reflected. Every reference used in-text must be in the reference list, and every reference in the reference list used in-text.	√
Figure and Table In-text referencing: Below the figure/table	√
Copied Tables and Figures reflect the source (Surname, Year and page)	√
Modified Tables and Figures (Surname, Year)	√
Original Tables and Figures (Author's own work)	√
Table and Figure Titles In-text: Clear and neat, fit in page margins.	√
Figure Title: Below the figure	√
Table Title: Above the table	√
APPENDIXES	√

Consent form and information letter attached (if applicable).	√
Research instrument (questionnaire / interview schedule) attached (if applicable).	√
Gatekeeper's letter attached (if applicable).	√
Turnitin report summary page is attached as an appendix	√
Ethical clearance attached as an appendix.	√
Proposed Conceptual Model (optional).	
Letter from the Language Editor (if applicable).	√
Double-checked the Final PDF that the transition from Word has saved correctly; Word headings used to create PDF bookmarks during the Save As PDF process.	√

Signed

Student name and number: **ISAAC MARFO ODURO**

Student signature

Supervisor's names: **PROFESSOR MABUTHO SIBANDA**

Supervisor signature:

Supervisor's names: **DOCTOR SAMUEL KWAKU AGYEI**

Supervisor signature:

