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EARNINGS MANAGEMENT AND FIRM PERFORMANCE OF SEASONED EQUITY OFFERINGS IN SELECT AFRICAN SECURITIES MARKETS

By

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A Doctoral Thesis Submitted in Fulfilment of the Requirements for the Award of Doctor of Philosophy Degree in Finance

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AUGUST 2021

DEDICATION

This thesis is dedicated to Mr. and Mrs. Njau and dear Sister, your unwavering support, confidence, and prayers have seen me this far.

ACKNOWLEDGEMENTS

I would like to thank my Lord Almighty for this journey and for making my dream come true. It has been a voyage filled with its joys and arduous nights. Sincere appreciation also extends to, but is not limited to the following:

My supervisor, Prof. Chimwemwe Chipeta for his graciousness, patience, and timely feedback in holding my hand through this doctorate journey. He is a model supervisor, any doctoral student, would wish for. I am forever indebted to him.

To, St Paul's University, Kenya, for generously, granting me the doctoral leave, financial and moral support that has seen me this far.

To the participants and organisers of the Stellenbosch University PhD conference in July 2019 in Stellenbosch, South Africa and the African Review of Economics and Finance (AREF) August 2019 at the Wits Business School, Johannesburg, South Africa. The interactions and invaluable comments I obtained have enabled me to improve on various aspects of this thesis.

To the School of Economics and Finance, the University of the Witwatersrand for funding to attend advanced econometrics and panel study methods at the University of Cape Town.

To the Southern Africa Labour and Development Research Unit for sponsorship to attend the Econometrics, Panel Survey and Multiple Imputations courses using STATA in the School of Economics at the University of Cape Town.

To my partner, my supportive friends, PhD lab mates and colleagues, we have burnt the midnight oil together. Thank you.

ABSTRACT

The pursuit of finance is an iterative undertaking for finance executives globally intending to attain the desired level of financing. Primarily, managers and investors communications take place through financial statements; hence the statements information veracity possess far-reaching implications for the future of the firm on one hand and investor wellbeing on the other hand. However, various agency issues crop up, which interfere with the content of earnings reported, critical among them is Earnings Management (EM). EM refers to the practice of applying various accounting techniques and practices that present an overly optimistic view of the financial statements. EM is an emerging issue, which is increasingly attracting public attention, attributable to a crisis of confidence enveloping financial statements in the wake of recent global financial scandals. In summary, EM is a contemporary financial aspect that ultimately affects financial statements through influencing investors' decision making and impacting on firm performance.

Chiefly, this thesis seeks to investigate the presence and extent of EM in seasoned equity offerings (SEOs) and its effect on the short and long-run performance of these SEOs in the African emerging securities markets. The offshoot objectives of this study include examining the decomposition of EM into accruals EM (AEM) and real EM (REM) respectively and investigating topical issues that impact or are impacted by EM. These include corporate governance, earnings quality, and information asymmetry.

To achieve the stated objectives, the study examines 550 SEOs from 12 select African markets for the period 2008 to 2018. The modified Jones model and the Roychowdhury model are used to compute AEM and REM, respectively. Additionally, several panel data econometric approaches are used, namely System GMM for the dynamic model, Instrumental Variables as well as a linear model.

The findings confirm the presence and extent of EM in African emerging markets and build on the existing knowledge on EM in SEOs by advancing two main contributions. Firstly, the prevalence of EM is higher in SEOs compared to non-SEOs. Moreover, results also suggest that an improved level of financial performance in the pre-SEO issuance period is usually followed by impaired performance in the long run. Secondly, EM deteriorates earnings quality while information asymmetry exacerbates it. However, corporate governance proves to be a useful tool in mitigating EM to a limited extent.

The results from this study have a policy implication in two main ways. Firstly, public knowledge of EM practices will guide investors in critically evaluating SEOs for their real future intrinsic and potential value. Through examining the effects of EM, keen investors will be able to distinguish future earnings surprises and optimistic financial reporting. Secondly, where managers engage in EM, which is pervasive and shows evidence of detrimental effects on shareholder value, policy standards can be enacted to mitigate against EM.

Keywords: *Earnings Management (EM); Seasoned Equity Offerings (SEOs); Emerging Securities Markets*

PUBLICATIONS AND RESEARCH OUTPUTS

Antecedent to this submission, excerpts from this thesis have been presented in conferences and some are scheduled for publication in accredited journals. The details are highlighted as follows.

Conference Presentations

September 2019:	School of Economics and Finance Symposium, Johannesburg, South Africa
	The Role of Corporate Governance in Mitigating Earnings Management for Seasoned Equity Offering Firms. (Awarded the best PhD paper)
August 2019:	African Review of Economics and Finance Conference, Wits Business School, University of the Witwatersrand, Johannesburg, South Africa
	Corporate Governance and Earnings Management in African Seasoned Equity Offering Firms.
July 2019:	Financial Economics and Econometrics Conference, Stellenbosch University, Stellenbosch, South Africa.
	Earnings Management of Seasoned Equity offerings and Firm Performance in South African Listed Firms

PLAGIARISM DECLARATION

I **Daniel Kungu Njau** of student number **1248993**, of the **School of Economics and Finance** at the **University of the Witwatersrand**, do declare the following with absolute confidence regarding my thesis:

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Daniel Kungu Njau	**25TH AUGUST 2021**
……..	……..
SIGNATURE	**DATE**

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LIST OF ABBREVIATIONS

ABS	Average value of Bid-Ask Spread
AEM	Accruals Earnings Management
AM	Accrual Manipulation
AMEX	American Stock Exchange
AR	Abnormal Return
CEO	Chief Executive Officers
CEOs	Chief Executive Officers
CFOs	Cash Flow from Operations
COOs	Chief Operating Officers
DA/DAs	Discretionary Accruals
DCA	Discretionary Current Accruals
DMs	Developed Markets
EBIT	Earnings before Interest and Taxes
EBITA	Earnings before Interest, Taxes, and Amortization
EM	Earnings Management
EMD	Earnings management Detection
EMs	Emerging Markets
EQ	Earnings Quality
FCF	Free Cash Flows
FD	Financial Sector Development
FFO	Funds from Operations
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GICS	Global Industry Classification Standard
GMM	Generalized Method of Moments
IFRS	International Financial Reporting Standards
IPO	Initial Public Offer
JSE	Johannesburg Stock Exchange
LR	Long Run
MBO	Management Buyouts
NASDAQ	National Association of Securities Dealers Automated Quotation Systems
NDA/ NDCAs	Non-Discretionary Accruals
NYSE	New York Stock Exchange
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares
R&D	Research and Development
RAM	Real Activity Manipulation
REITs	Real Estate Investment Trusts
REM/RM	Real Earnings Management
ROA	Return on Assets
SBOs	Seasoned Bond Offerings
SEC	Securities Exchange Commission
SEO	Seasoned Equity Offerings
SG&A	Selling, General and Administration Expenses
ST	Short Term
TA	Total Accruals/Total Assets
UNDP	United Nations Development Program
USD	United States Dollar
VC/VCs	Venture Capital/Venture Capitalists

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CHAPTER ONE
INTRODUCTION

1.1 Brief Introduction

The quest for additional capital by corporates is a continuous undertaking as they seek to expand their scope of operations and maximize shareholder value. Constantly, high shareholder expectations inundate public firms as shareholders demand a higher amount of profits or earnings. Firms that report favourable earnings can raise their profile; they enjoy a higher market valuation and can attract capital at a lower cost.

The need for additional capital constitutes the primary reason why firms engage in seasoned equity offerings (subsequently herein referred to as an SEO in this study). An SEO differs from an IPO because it involves a subsequent public offering that usually applies to an already listed public firm. A seasoned equity offering also referred to as a secondary equity offer (hereafter in this research referred to as an [1]SEO) is an additional issue of equity by a firm that has already undertaken an IPO. Usually, the firm which issues an SEO is publicly traded. To be successful

[1] SEO is an abbreviation for seasoned equity offering and secondary equity offering. In the Commonwealth countries, they are referred to as equity rights issues while in the USA and the rest of Europe the term SEO is commonly used. In market reports, the term further offers (FO) and Follow on Public Offerings (FPO) are also used.

in the quest to issue additional equity offerings, firms have to present credible financial statements that are subsequently used by potential investors in making the critical financial decision on whether they should invest in these firms. However, there is a considerable inclination for managers and directors, who are tasked with the fiduciary responsibility of presenting accurate financial statements, to tweak, smoothen and be creative in presenting the statements to portray a healthy financial outlook of the firm. The ongoing practice by financial managers to paint an overly optimistic and rosy outlook of the financial statements within acceptable financial reporting standards is precipitating the rise of the concept referred to as earnings management (subsequently herein referred to as EM in this study).

The amounts of earnings conveyed in a firms' financial statement constitute the yardstick for measuring business performance as well as the managers' performance. As a consequence, firm managers are continuously under immense pressure to post good results. If these are not forthcoming, the management may succumb to the pressure of making objectionable alterations to the financial statements. These alterations are designed to reflect an optimistic view within acceptable disclosure requirements. For instance, Davis, Ge, Matsumoto, and Zhang (2015) establish that managers tend to use a positive worded language tone when reporting corporate disclosures with the express aim of attaining specific desired goals mainly; to make these financial reports appealing to investors. Further, several studies corroborate these previous assertions of EM (See, Anh and Duc-Tho Nguyen, 2013; Asay, Libby, and Rennekamp, 2013: Kim, 2017)

Typically, potential investors rely on the content of the financial statements as a base for their decision to invest. Traditionally, initial public offers (IPOs) commonly attract more in-depth investor scrutiny compared to subsequent SEOs. For instance, Abraham and Harrington (2011) describe an SEO as the issue of shares by firms that have already successfully undertaken a

primary issue. The inferred but not yet fully established relationship between EM and SEO, therefore, constitutes the cornerstone for this research.

1.1.1 Goal of this Chapter

The goal of this introductory chapter is to provide a comprehensive background to the study. The focus is on the motivation for the study, the relationship between EM and SEOs in African stock markets, the research problem and existential gap, research objectives and the overall structure of the research proposal.

1.1.2 Layout of this Chapter

The Chapter is organized as follows; 1.1 Introduction 1.2 Background of Study 1.3 A brief History of African Securities Markets 1.4 Significance of SEOs 1.5 Motivation for the Study, 1.6 Why the choice of Africa for this Study? 1.7 Problem Statement 1.8 Research Objectives and 1.9 Contribution to the Study

1.2 Background of the Study

There is an ongoing concern that managers are engaging in EM when trying to raise additional capital through an SEO and meeting set threshold earning levels (Fogel-Yaari and Ronen, 2020). The US capital markets regulatory authority, the Securities Exchange Commission (SEC), alludes to the emerging notion that the practice is pervasive, yet it remains an unchallenged custom. For instance, Gunny (2010) breaks down EM into two major divisions; AEM and REM, with the former occurring within the framework of generally accepted accounting principles (GAAP). It involves the management trying to shroud and conceal the true firm's financial performance. Similarly, real EM occurs when managers surreptitiously carry out actions that change the structure and timing of a financing transaction, investment, or operation in a deliberate effort to influence the content of the financial statements.

The prevailing assertion that EM is prevalent and even convictions have been made because of engaging in it is further affirmed by Ball (2013). Under ordinary circumstances, managers are always seeking ways to present favourable statements that are acceptable to interested parties. Financial statements form the basis of evaluation on whether managers are fulfilling the cardinal goal of maximizing their shareholders' wealth. Moreover, Yoon and Miller (2002) succinctly state that EM occurs when managers duly exercise their discretion and personal judgment in preparing financial reports, structuring transactions, recognition of income, accrued expenses, and receivables.

There exists a plethora of literature that sheds light on management incentives or inclination to engage in EM and consequently, their motivation for doing so. Besides, the reasons for engaging in EM are also diverse and dynamic. Among the myriad motivations for engaging in EM include; share-based incentives and share compensation as a form of management reward; (see, Cheng, Warfield, and Ye, 2011; Terry, 2005, income smoothing, (see Fonseca and González, 2008; Huang, Zhang, Deis, and Moffitt, 2009), management buyouts as a form of ownership control (see, Cohen et al., 2008; Laux, 2009), and political costs (see, Cahan, 2011; Campopiano, De Massis, and Cassia, 2012).

Unlike an IPO which usually attracts in-depth public scrutiny when a firm introduces its shares to the general public for the first time, SEOs are likely to be under the radar with regards to potential investors and regulatory authorities' attention. This can be attributed to the trust that has already been cultivated by a firm that has already undertaken a successful IPO. Several studies conducted before this study, make stark assertions that firms planning to issue shares in SEOs and immediately during the post SEO phase are inclined to engage in EM (See, Aminu Bello, 2016; Chen, 2017; Dbouk and Ismail, 2010; Zhou and Elder, 2004).

However, it is noteworthy that a sizeable number of these studies on EM and SEOs have been primarily concentrated in the developed western markets and a limited number in the Asian emerging markets. For example, Yoon and Miller (2002) investigate EM of SEOs in South Korea with their primary goal focused on whether firms manage their earnings a year before the SEO and immediately after the offering in the short term. The findings show that firms contemplating SEO do manage their earnings. This practice is likely to be more prevalent when their earnings are relatively low. Therefore, this study embarks on establishing the exact nature of the nexus between EM and SEOs with particular attention to African financial markets.

1.2.1 What is EM? A Brief Introduction

There exists a demarcated distinction between fraudulent accounting and EM. Fraudulent accounting refers to practices that violate accounting standards, while EM refers to those practices that involve manipulation of financial statements by managers with different purposes (Ruiz, 2016). Enomoto, Kimura, and Yamaguchi (2015) explain that EM occurs when managers use discretionary judgments in financial reporting and structuring of transactions to alter financial reports to either mislead stakeholders about the economic performance or to influence contractual outcomes that depend on reported accounting numbers. For this study, the envisaged contractual outcomes are SEOs.

A significant number of global corporates such as Enron[2], Lehman Brothers[3], Autonomy Corporations[4], Monsanto[5] and AIG[6] in the US, Toshiba[7] in Japan, Penn West Exploration[8] in Canada and Parmalat[9] in Italy, have resulted in increased public attention and scrutiny to the actual content of financial statements presented by firm management. Increasingly, investors have become wary of the reliability of financial statements raising the question of whether they present a true and fair view of the company's affairs. Investors' concern with the accuracy of financial reports reaches acute proportions when some of the firms approach them seeking to offer SEO. In all the mentioned cases of fraudulent accounting and subsequent litigation,

[2] Zellner & Forest, (2001)
[3] Extracted from Lehman Brothers Holdings Incorporated. Chapter 11 Proceedings Examiner's Report by Jenner and Block.
[4] A report in the Forbes magazine on how the computer company HP bought a subsidiary Autonomy mired in an accounting scandal. Extracted from: https://www.forbes.com/sites/danielfisher/2012/11/20/with-autonomy-h-p-bought-an-old-fashioned-accounting-scandal/#27aa4294aa6a
[5] The company Monsanto was apparently involved in the improper accounting of incentive customer rebates to mask its financial performance. Extracted from: https://www.nytimes.com/2016/09/11/business/for-monsanto-whistle-blower-a-22-million-award-that-fell-short.html
[6] AIG was involved in the improper accounting of structured financial deals. Extracted from: https://www.insurancejournal.com/news/national/2004/11/24/47993.htm
[7] Toshiba profit was reportedly overstated by £738 million over a six-year period prior to the year 2015. Extracted from: https://economia.icaew.com/news/july-2015/toshiba-profit-overstated-by-738m
[8] Penn West Calgary is a large $5 billion Canadian oil exploration firm. It was forced to restate its earnings after accounting irregularities in 2014. Extracted from: http://www.cbc.ca/news/business/penn-west-to-restate-results-after-accounting-irregularities-1.2722394
[9] Parmalat is a large Italian dairy company. The company was found culpable of falsifying accounting documents. Extracted from http://news.bbc.co.uk/2/hi/business/7790803.stm

company share prices have ultimately plummeted following the negative news associated with the scandals.

1.2.2 Decoupling of EM into AEM and REM

Further, EM can be broken down into real earnings management[10] (hereafter referred to as REM) and accruals-based earning management[11] (hereafter referred to as AEM). In REM, the management's goal is to mislead SEO investors into believing that the results obtained in the financial statements have been achieved in the ordinary course of operations (Ruiz, 2016). On the other hand, AEM involves managers introducing their subjectivity and judgment in accounting choices made in the financial reports, and consequently, distorting the firms' operating underlying performance (Ruiz, 2016). Further, another distinction between the two types of EM is enunciated in Ewert and Wagenhofer (2012) where AEM is interpreted as influencing the recognition, measurement, and disclosure of transactions and events in the balance sheet. On the other hand, REM consists of performing or altering transactions that are, then, reported in the financial statements to influence the reported numbers.

[10] The same interpretation should be attached to *"real earnings management"* and *"real activity manipulation."*
[11] In earnings management studies, "*discretionary accruals earnings management*" is used interchangeably with "*accrual based earnings management*." The two phrases have the same meaning.

EM is perceived to take place when there is a change in the accrual process or a deviation from ordinary business activity. A change in the accrual process is said to be an AEM while a deviation in ordinary business activity is regarded as REM (Chi, Lisic and Pevzner, 2011). Ordinarily, AEM is more comfortable to detect as well as being more visible than REM because of improved IFRS and regulators scrutiny. REM is more problematic to detect in SEOs as it is based on managers' actual decisions which may seem valid at face value. REM practices are perceived to be on the rise because of enhanced regulations and controls which are progressively diminishing the role of AEM (Cohen, Dey and Lys 2008, Matsuura, 2008). Also, the differences between the two types of EM have also been a focus of study by Enomoto et al., (2015) who examine the comparison between REM and AEM management to enhance consumer protection. AEM occurs when there is a change in the normal established corporate accrual process, while REM involves a deviation from regular business activity. Both types of EM may occur independently or concurrently in the financial statements. Besides, both accruals manipulation strategies and real activity manipulation are used as proxies for EM.

1.3 A Brief History of African Securities[12] Markets

There has been an advent of growth and development in the African securities market over the last three decades. There were only eight active stock markets in 1980[13], with the number of exchanges considerably increasing to 18 by the end of 2003 (UNDP, 2003)[14] and has continued to increase[15] (PWC, 2016). Table 1.11 provides a brief profile of African Securities Markets.

Table 1.11: Brief Profile of African key Stock Exchanges

Market Capitalization in USD ($)	[16]African Country	Exchange
> $100 billion	South Africa	Johannesburg Stock Exchange
>$60 – $100 billion	Egypt, Morocco	Egyptian Stock Exchange, Casablanca Stock Exchange
>$30 – $60 billion	Tunisia, Kenya, Nigeria	Bourse De Tunis, Nairobi Stock Exchange, Nigeria Stock Exchange

[12] The word "Securities" is a broad word representing stocks, derivatives, and bonds. It is used interchangeably with "stock market" or "financial market" for the entire study.

[13] The pioneer eight stock markets in existence in 1980 were as follows: The Johannesburg Stock Exchange (South Africa, 1887), the Cairo and Alexander Stock Exchange (Egypt, 1888), the Zimbabwean Stock Exchange (Zimbabwe, 1896), the Casablanca Stock Exchange (Morocco, 1929), the Nairobi Stock Exchange (Kenya, 1954), the Nigerian Stock Exchange (Nigeria, 1960), the Tunisian Stock Exchange (Tunisia, 1969), and the Abidjan Stock Exchange (Cote d'Ivoire, 1973).

[14] Extracted from the United Nations Development Programme Handbook on African Stock markets

[15] Data obtained from African Capital Market Watch as of 31st December 2016.

[16] African countries which are not featured in the above table presently have inactive or no exchanges.

$5 – $30 billion	Namibia, Botswana, Zimbabwe, Zambia, Tanzania, Uganda, Ghana, Mauritius, Malawi	Namibia Stock Exchange, Botswana Stock Exchange, Zimbabwe Stock Exchange, Dar es Salaam Stock Exchange, Uganda Securities Exchange, Ghana Stock Exchange, Mauritius Stock Exchange, Malawi Stock Exchange
Unavailable	BVRM Members	Bourse Régionale des Valeurs Mobilières: Benin, Burkina Faso, Côte d'Ivoire, Guinea- Bissau, Mali, Niger, Senegal, and Togo
Unavailable	BVMAC Members	* Bourse des Valeurs Mobilières de l'Afrique Centrale: Central African Republic, Chad, Equatorial Guinea, Gabon, and Republic of Congo. Sources:
Other active exchanges[17]	Cape Verde, Algeria, Libya, Sudan, Somalia, Rwanda, Mozambique, Seychelles	Cape Verde Bolsa De Valores, Algeria Stock Exchange, Libyan stock market, Khartoum Stock Exchange, Somali Stock Exchange, Rwanda Stock Exchange, Mozambique Bolsa De Valores, Seychelles Securities Exchange

Source: (PWC, 2016:2)

1.4 Significance of SEOs

SEOs are an attractive channel for firms to raise funds through the sale of shares as opposed to the issuance of additional debt. For example, Abraham and Harrington (2011) examine the characteristics of firms that embark on issuing shares in an SEO and seek to establish why firms would opt for an SEO as a financing option compared to debt which plugs the financing gap more quickly and has fewer restrictions. Furthermore, debt interest repayments are tax-deductible and book debt does not dilute firm ownership if adequately managed. However, even though the debt is attractive at face value, the possible future difficulties arising out of issuing debt which include financial distress, corporate bankruptcy and reduced earnings to shareholders are avoided by

[17] These stock exchanges are different in volume traded and their market capitalization cuts across different bands.

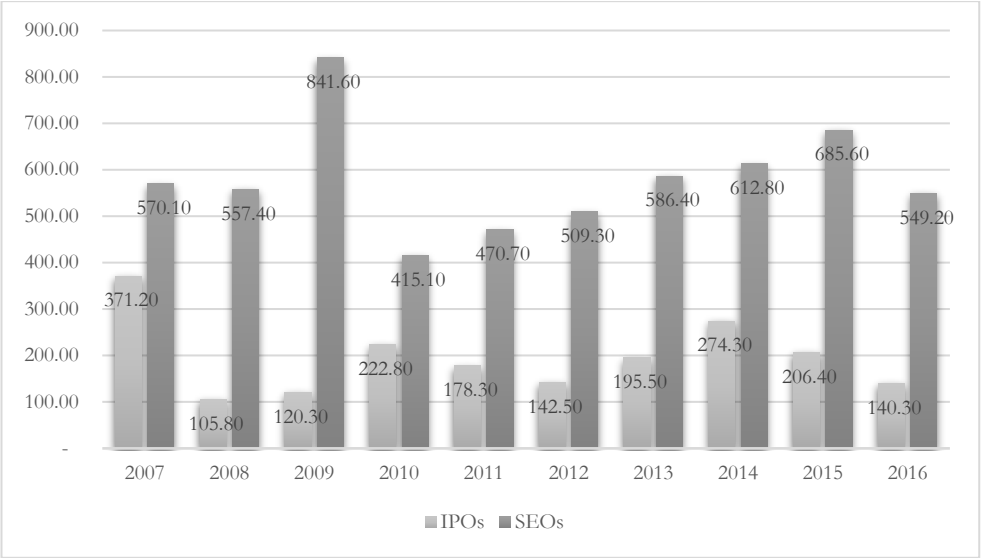
firms that opt for SEOs. The authors establish that firms, which are financially sound in terms of their statement of financial position, are more inclined to fulfil their financing requirements by issuing SEOs. Moreover, the successful issuance of an SEO by a firm is a vote of confidence by investors on the SEO issuing firm's financial prospects.

Besides, a strong motive and strategy can be conveyed and determined through its issuance of an SEO. A firm facing financial distress and constraints is likely to report high earnings just before an SEO to make its equity issue more attractive. PWC (2016) observes that EM is an anticipated precursor to SEO. Moreover, firms experiencing financial distress are likely inflating their earnings to enjoy more significant SEO proceeds. Additionally, those that are fundamentally strong but financially constrained are likely to signal their post-issue profitability once the funds are availed.

Often, in the medium term to long term, the value of SEO proceeds exceeds the IPO proceeds as firms engage in further equity issues to finance their growth. This is illustrated in Figure 1.11, showing a summarized value of the global transactions for IPOs and SEOs (SEOs are also referred to as FOs[18]) for nine years between the years 2007 and 2016.

[18] FO stands for subsequent further offers after the IPO. FOs are also referred to as SEO.

Figure 1.11: Global Funds Raised through IPOs and SEOs



Source: (PWC, 2016)

The column values (y-axis) represent the value of funds in millions of USD. Approximately, the total value of SEO is three times as large for each year under observation. Many of these transactions occur in the developed economies, though emerging economies are slowly catching up because they constitute approximately 28% of the total global transactions share as per the Bloomberg Financial Database. Therefore, SEOs, constitute a large proportion of funds generated through equity issues, yet they have attracted lower public scrutiny compared to IPOs. Considering the emerging evidence on the size of SEOs, EM around SEO and the importance of SEO, this study seeks to study in-depth the association between these variables above.

1.5 Motivation for the Study

This subsection seeks to shed light on the push factor for engaging in this study. The extant literature confirms that EM does indeed take place in various spheres of business transactions (Yaari and Ronen, 2020; Uchida, and Dong, 2020). It is tempting to lump the findings in the

developed markets to emerging markets with an assumption of a “one size fits all” solution that is applicable in these different markets. However, it would be erroneous to do so as pointed out in these critical highlights which seek to expound on how emerging markets, especially those in Africa, differ from other developed markets where many studies have been undertaken. On this note, several key motivators are to be discussed based on the following unique attributes of African securities markets:

1.5.1 The Institutional Environment in Africa

The development of the African financial markets is heavily dependent on the adoption and implementation of acceptable standards. Moreover, they are also governed by critical macro-economic conditions variables such as functioning judicial and legal systems. For example, Claessens and Yurtoglu (2013) posit that critical conditions that make securities markets thrive include; protection of property rights, enforcement of shareholders and creditor rights and adequate firm disclosure. On the contrary, in African securities markets apart from a few more developed markets like South Africa, these conditions are loosely enforced. Therefore, what matters, is the degree of enforcement of regulations in African securities markets compared to more developed Western and Asian securities markets.

One of the main reasons why African securities markets have been perceived to be riskier and illiquid stems from the lack of uniform acceptable financial reporting and accountability standards. With the recent trend inclined towards market integration and financial contagion as evidenced by Boako and Alagidede, (2017) and Bundoo, (2017), there is a need for a more in-depth investigation on the EM and SEOs in these markets. The main question is whether African securities markets have grown enough to offer firms an alternative to raise equity through enabling SEO and whether the information is available to potential investors to closely examine the financial reports on which they base their decision to participate in the SEO.

In general, capital movements are sensitive to governance and financial reforms. For example, Chipeta and Deressa (2016) examine the effect of financial reforms on firm performance for the firms listed on the Johannesburg stock exchange in South Africa with the findings showing that increased shareholder return is a consequence of the stock market liberalization. Therefore, it follows that investors usually factor in governance when heeding the call of managers to take up subsequent equity issues to enjoy subsequent favourable returns. Although African democratic institutions are new compared to Western standards, continuous adoption, and implementation of good corporate governance in Africa will be a likely future stimulus to growth and investor confidence. Thus, this study focuses on African securities with attention to EM and SEO, which is impacted by corporate governance. Additionally, increased technological advancement and adoption in Africa has also promoted the automation of various securities exchanges in Africa. Technology creates an electronic audit trail and removes preexisting institutional barriers and bottlenecks to efficient trade. Post-adoption of technology translates to a more robust African securities market which merits further in-depth investigation. Besides, many markets are implementing reforms and adopting IFRS to attract capital and instill investor confidence.

Also, there are emerging indicators depicting Africa as the new frontier for rapid economic growth (Allen et al., 2011; Asongu, 2012; Boako and Alagidede, 2017). This is a pointer that these markets are a possible future strong magnet for global capital. Given the above discussion, there is a stark need for additional studies shedding light on the nexus between EM and SEOs with an emphasis on African emerging securities markets. This study attempts to plug one of these emerging knowledge gaps.

1.5.2 Peculiar Ownership Structure and Low Concentration of Institutional Investors in Africa

The extant literature on ownership concentration points to an association between firm ownership and how it is governed with ownership structure influencing the nature of principal and agency issues in the firm (See, Adiguzel, 2013; Bao and Lewellyn, 2017; Claessens and Yurtoglu, 2013; Saleem and Alzoubi, 2016). In developed markets, checks and balances mitigate against a category of owners possessing excessive control over the firm. However, in African emerging markets, the evidence suggests that a few significant shareholders possess a controlling stake in listed firms (Zhang, 2020). Also, studies from Kenya, Tunisia, Zimbabwe, and South Africa suggest that ownership is concentrated among a few shareholders and there is a considerable divergence of cash flow rights from control rights (Claessens and Yurtoglu, 2013). Although ownership structure has not been controlled for in this study, it informs the background on why we should focus on Africa.

Institutional investors exercise a more significant monitoring role which enhances shareholder protection by mitigating the effect of EM in SEOs in listed firms and makes institutional ownership in a firm beneficial. To illustrate this, Claessens and Yurtoglu (2013) report that in developed markets, institutional investors promptly exercise their powers in firm governance. However, evidence of this relationship in African emerging markets is markedly absent. Bao and Lewellyn (2017) acknowledge that the quality and accuracy of financial information reported by some firms in emerging markets remain questionable. Therefore, the low participation of institutional investors, coupled with the minimal role played by the active participants exacerbates the opaqueness of African securities markets and sets them apart from those in the developed markets.

1.5.3 Information Asymmetries in African Financial Markets

According to the literature, African securities markets possess particular unique dynamics that can be segregated by region, and this sets these markets apart from those of developed markets. For instance, Gkillas, Vortelinos, and Suleman (2018) investigate asymmetries in African financial markets consisting of stock and forex markets in Botswana, Egypt, Kenya, Mauritius, and South Africa. They find that specific sub-regions in Africa such as the Southern Africa development community (SADC) and Common Market for Eastern and Southern Africa (COMESA) possess similar attributes. However, these markets still indicate some level of independence, unlike the contagion present in developed Western financial markets.

Currently, the African continent consists of 54 countries[19] with approximately half of the countries having active securities market exchanges. The continent is diverse, both economically and culturally. Consequently, the financial systems are also diverse. Although there has been a surge of growth in the African securities market, their depth has been called into question. For instance, Allen, Otchere, and Senbet (2011) review African financial systems with a particular emphasis on the banking and insurance sectors, and stock markets. The authors hypothesize that

[19] As they stand as of December 2019 and currently recognized by the United Nations and African Union: http://www.au.int/en/member_states/countryprofiles

African stock markets can only be considered viable if they can be able to improve risk-return tradeoffs. Also, the authors observe that apart from the traditional African powerhouses consisting of South Africa, Nigeria, Egypt, Kenya and Ghana, the rest of the stock markets are thin, illiquid and the percentage of stock traded is relatively low compared to the Gross Domestic Product (GDP). However, the authors, furthermore, establish that African financial markets report attractive financial performance after adjusting for risk. Additionally, the African securities market, were mostly immune from the 2008 financial crisis, except for Nigeria and South African stock exchanges which are more closely interlinked with the West. This is a classic indicator that the emerging markets in Africa are the new emerging frontiers for growth.

Besides, emerging evidence also indicates that African stock markets are experiencing increasingly lower levels of information asymmetry. For example, Alagidede (2011) conducts a study on return behaviour in Africa's emerging equity markets. The author finds evidence of stylized empirical facts being present in African securities market data. In these markets, investors are compensated for taking a risk. Moreover, the newly emerging African markets are becoming acceptable avenues for global risk mitigation and are increasingly becoming attractive investment avenues. On the same note, Mensah and Alagidede (2017) investigate the extent of dependence between Africa's emerging stock markets and the developed markets using the probability theory, Copula. It is established that dependence is weak and time-varying for most African markets apart from South Africa. The low incidence of dependence makes African emerging securities markets more immune to financial crisis contagion and risk spillovers from developed markets.

African securities markets are therefore evolving, and they possess specific attributes (as discussed in the next section) both present and lacking in other global markets. Besides, according to global trends, the African securities markets are bound to continue with the path of

integration as evidenced by the emergence of various regional exchanges across the continent (Bundoo, 2017). Consequently, this study, therefore, focuses on African emerging markets while examining in detail different facets that are market-specific in Africa.

1.5.4 Corporate Governance Effects on EM

In Africa, corporate governance is increasingly attracting researchers' attention because of the impact it has on the shareholder value in stock markets on the continent. However, it remains unclear whether corporate governance can mitigate EM in SEOs in the African context. The existing literature shows that acceptable governance practices are essential in protecting shareholder value. Borrowing a leaf from global history to start with, Asongu (2012) explains that the reason why London emerged as a global world financial center, was because of the reputational fairness and strict observance of law by English courts and implementation of the principles of the common law. Besides, analysis of spillover effects on African stock markets as a result of the global financial crisis suggests that to an extent, these African markets are immune, particularly, in the commodity and currency markets (Sugimoto, Matsuki, and Yoshida, 2014). Keeping this in mind, it is worth examining SEOs in African listed firms due to these unique attributes in African securities markets.

The evidence on corporate governance in African emerging markets alludes to lower adoption of best practices in African listed firms compared to more established markets. For instance, Munisi and Randøy (2013) find that companies across Sub-Saharan Africa have only partly implemented acceptable corporate governance practices. Best practices exist to ensure the principles of accountability and transparency are observed in the preparation of financial statements, and this is critical because investors primarily base their decisions on their contents. As a consequence, attempts have been made to control EM through the regulatory framework. For example, Marra, Mazzola, and Prencipe (2011) seek to establish whether a firm’s board of directors is effective

in curtailing EM when exercising their oversight responsibility role. They focus on board independence and the existence of an audit committee and whether these two variables deterred EM with findings showing that both board independence and the presence of audit committee ameliorate incidences of EM. However, the findings are silent on whether corporate governance measures can mitigate EM in SEOs. Similarly, Enomoto, Kimura, and Yamaguchi (2015), investigates whether potential investors across the world are protected from a firm's EM practices through prevailing standards. Findings show that firms with more robust investor protection are more inclined towards REM as opposed to AEM with strong investor protection acting as a potent inhibitor against EM. In light of this, it is imperative to examine whether adequate firm controls can suitably mitigate the impact of EM in SEOs.

SEOs are highly regulated in practice as evidenced by regulatory bodies that require timely filings of SEO related documents. Notwithstanding the above contributions, there is a need to examine in detail the link between corporate governance and EM. Further, it explores whether EM pervasiveness increases or reduces considering the variations in corporate governance practices in African SEOs.

1.5.5 Other Compelling Attributes in African Securities Markets

In contrast to developed markets, African securities markets possess other unique attributes such as uncertainty, growth prospects, volatility, and independence (See, Allen et al., 2012; Bundoo, 2017; Chseng et al., 2010; Chinzara, 2011; Mensah and Alagidede, 2017; Ntim et al., 2011). These unique attributes present a host of opportunities and challenges that make the African securities market unique and provide motivation for undertaking this study.

Rejeb and Boughrara (2013), report that with the advent of market liberalization, improvement in governance index (Munisi and Randøy, 2013) and consistent growth of African economies

(Gkillas et al., 2018), it is imperative to study EM in the context of SEOs issued in Africa in light of these emerging developments. Additional issues such as a turnaround in exchanges infrastructure development and prospects of returns in African securities markets (Al Nasser and Hajilee, 2016; Allen et al., 2011; Bundoo, 2017) offer reasonable grounds to pursue a study in African securities markets.

1.6 Problem Statement

In this study, an exhaustive literature review done shows that studies on EM and SEOs have primarily been restricted to the developed markets in the West (the US and Europe) and South East Asia (See Chapter 4). However, there is scanty, African continent specific literature on EM and the performance of SEOs. Besides, this study attempts to resolve some of the gaps in the EM and SEO literature with particular emphasis on the following aspects: the extent and nature of EM in SEOs in African securities markets, the decomposition of EM into AEM and REM, the implication of EM on the short and long-run performance of SEOs, the role of corporate governance in mitigating EM in SEOs, the implication of EM on earnings quality in SEOs, and the implication of information asymmetry on EM in SEOs.

1.6.1 The Extent and Nature of EM in African Securities Markets SEOs

As per common standards, the financial statements should ideally represent an accurate and fair view of all transactions and events. When EM features in the financial statements of SEOs, it may lead to investor judgment being substantially altered when they rely on the respective earnings managed statements.

Several pertinent issues need to be addressed by this first statement of the problem. Firstly, with the more recent adoption of accrual measurement best practices, evidence on EM as per prior literature may have substantially shifted. Secondly, a considerable number of studies on EM are conducted in the context of the developed American market (a more profound analysis has been undertaken in the literature review in chapter three section 3.6) which may possess different market-specific dynamics compared to those in Africa.

Specifically, the limited prior studies carried out in Africa on EM do not relate to EM and SEOs together but rather attempt to address each separately. Moreover, the evidence illustrates that in

securities markets with robust public awareness and analysts' coverage of listed firms, arguably, EM prevalence is low. For instance, Degeorge, Ding, Jeanjean, and Stolowy (2013) examine analyst coverage, EM and financial development in 21 countries including South Africa and establish that developed countries with more advanced financial systems and an incisive analyst coverage experience lower incidences of EM. The South African securities market is classified as an evolving one, *albeit* at a higher level since its market is almost approaching that of a developed one. For example, Rabin (2016) alludes to the existence of EM in South Africa. However, it is unclear how EM in SA differs from other emerging markets in Africa.

Contrary to studies that suggest the presence of EM in Africa, Pududu and Villiers (2016) find limited evidence of EM in South Africa while examining whether South African managers administer earnings to avoid reporting losses. They report limited evidence to support the case for EM and attribute their findings to financial analysts' fixation with other types of performance indicators such as revenue and headline earnings per share. Therefore, the evidence is contradictory, thus, inconclusive as to whether EM affects SEOs in African emerging markets.

Having canvassed the literature on EM, it is evident that the extent of EM within the context of listed African firms engaging in SEOs remains unclear (empirical literature analyzed further in chapter four section 4.5). Through empirical analysis, this study will further the knowledge on the extent of EM in SEOs in the context of African emerging markets.

1.6.2 The Relationship between AEM and REM in African Securities Markets SEOs

Once this study has determined the extent of EM in SEOs, the next question is to further understand the relationship between AEM and REM by decomposing EM into its constituent parts; REM and AEM. To illustrate this, Cupertino, Martinez and da Costa (2015) observe that REM is an emerging issue that has an impact on Brazilian investors' perception, therefore warrants further investigation. The main question is to what extent REM and AEM constitute EM, the proportion of each within EM and whether they act as substitutes or complements when managers engage in EM and more significantly in the context of African emerging markets.

Prior literature alludes to an association between REM and AEM when managers engage in EM. However, the exact nature of their relationship remains inconclusive. For example, Sohn (2016) suggests that managers employ REM *in lieu* of AEM when their firms' level of financial statements comparability with similar US firms in the same industry goes up. In this case, REM becomes an alternative for AEM when earnings are subjected to closer scrutiny. On the contrary, Li (2019) finds a complementary relationship between REM and AEM when examining the impact of equity compensation among CEOs of non-financial firms in the US. Similarly, Oz and Yelkenci (2018) while investigating the EM managerial practices alludes to a multi-pronged approach adopted by managers to pursue EM by relying on REM and AEM concurrently. Consequently, it is unclear how SEOs respond to EM when EM is decomposed to REM and AEM. Although Roychowdhury et al., (2012) find that underperformance is primarily driven by REM, a review of studies such as Fogel-Yaari and Ronen (2020) and He, Ng, Zaiats and Zhang (2017) suggest that for emerging markets, AEM may play a more prominent role compared to REM, an assertion this study will attempt to address adequately. From these studies, the evidence emerging is that the nature of the relationship varies depending on the context. It is therefore imperative to examine both forms of EM and how they relate in SEOs and more significantly in

African securities markets since these prior studies have only addressed the developed US market.

1.6.3 The Implications of EM on the Short Run and Long-Run Performance of SEOs

The effect of EM on the financial performance of SEOs has been a point of ongoing interest given that firms that issue SEOs are likely to attract more public scrutiny compared to non-SEOs. For instance, Loughran and Ritter (1997) are among the first authors to examine the implications of SEOs on firm operating performance and they find evidence of long-run underperformance for these firms. Further studies have attempted to build on literature in the area of SEOs underperformance in the long run in developed markets (see Ngo and Varela, 2013; Roychowdhury et al., 2012; Seetharam and Cunha, 2018) and SEOs underperformance in the short-run (Seetharam and Cunha, 2018). It is noteworthy that these studies in the previous paragraph, (among myriad others addressed in the literature review) have attempted to address the financial performance of SEOs both in the short and long-run but remain silent on the effect of EM on SEOs financial performance in the short and long run, particularly in African emerging markets. Furthermore, apart from examining the underperformance of SEOs, they remain largely silent on what precipitates this underperformance.

Given the context of African countries that are characterized by high levels of information asymmetry, low corporate governance standards and weak institutions (all of which will be revisited in subsequent problem statements), it remains unclear the extent to which EM influences the short and long-run performance of SEOs. Similarly, it is crucial to investigate how the financial performance of SEOs is impacted in the short and long-run when EM is disaggregated into AEM and REM. The importance of examining the influence of EM cannot be understated. Du and Shen (2018) observe that EM is costly, and it increases the cost of SEOs. Furthermore, past EM practices are likely to persist into the future creating momentum for further

EM and therefore, additional future firm costs to manage it. These characteristics of EM create a fresh impetus for investigating the impact EM has on SEOs financial performance.

1.6.4 The Implications of Corporate Governance on EM in SEOs

A cross-section of the literature suggests a link between corporate governance and SEO performance (See, Cho and Chun, 2016; El Diri, Lambrinoudakis and Alhadab, 2020; Riwayati, Markonah and Siladjaja, 2016; Xue and Hong, 2016), with corporate governance arguably serving as a control mechanism that restrains managers' incentives to execute non-value-adding SEOs or to misappropriate the proceeds from the SEO as observed by Sun (2012). Other studies imply that corporate governance possibly reduces information asymmetry, which is linked to EM (See, Man and Wong, 2013; Tang and Chen, 2020; wen Tang et al., 2013). Similarly, Huang and Tompkins (2010) suggest that corporate governance also plays a role in the financial performance of SEOs with SEOs likely to engage in EM where governance standards are not observed strictly. However, on a critical note, these studies are silent on whether the implementation of corporate governance best practices is effective in mitigating EM in SEOs, particularly in the context of African securities markets. Furthermore, the evidence documents that the prevalence of acceptable corporate governance practices in emerging markets may be less widespread in comparison to developed markets. On this note, Zulfiqar et al., (2009) also opine that emerging markets such as those in Africa warrant more attention to the level of adoption of corporate governance as well as its consequent effect. Hence it is imperative to investigate the association between corporate governance and EM, particularly in the context of emerging markets such as Africa. Consequently, this study, therefore, seeks to fill in this gap by explicitly examining the effect of corporate governance and EM.

1.6.5 The Implications of EM on Earnings Quality in SEOs

The level of earnings quality in financial statements is critical for potential users of these statements in making a sound investment decision. As a result, it is reasonable, therefore, to assume that EM potentially affects earnings quality in SEOs. Largely, the extant literature is silent on the effect of EM and earnings quality with only a limited study addressing EM in the context of earnings quality both in developed and emerging markets. The scanty evidence available on earnings quality is purely anecdotal and there is an apparent lack of empirical evidence linking EM to earnings quality. For instance, Lo (2008), while examining the motives for EM suggests in passing that a higher incidence of EM is associated with a lower incidence of earnings quality. Similarly, Pududu and Villiers (2016), while examining whether EM is an avenue for managers to hide firm losses aver that there is a likelihood of an inverse relationship between EM and earnings quality. In a nutshell, the link between EM and earnings quality has not been adequately documented, particularly in the context of SEOs in emerging markets such as Africa. This research gap informs the need to hypothesize that EM has an effect on earnings quality thus, justifies the need to test this association in the context of African securities markets.

An examination of proxies used to measure earnings quality provides limited evidence on the link between EM and earnings quality, with the presence of a causal relationship between EM and proxies for earnings quality building evidence that these variables are interlinked. For example, Dechow et al., (2010) review proxies used to measure earnings quality and establish that the quality of earnings is a function of both SEOs and non-SEOs financial performance. From the study, it remains unclear whether EM leads to lower earnings quality, or whether, the level of EM determines an SEOs earnings quality. Therefore, the effect between EM and earnings quality in SEO and firm performance must be more thoroughly examined within the context of emerging African securities markets.

1.6.6 The Implications of Information Asymmetry on EM in SEOs

The empirical evidence on information asymmetries lends credence to the fact that emerging markets possess higher information asymmetry compared to the developed markets (Campa, 2019). For instance, Rejeb and Boughrara (2013) observe that information asymmetry manifests itself when there is a mismatch between information in the hands of the management of SEOs and potential investors for purposes of decision making. Furthermore, Lin and Wu (2014) and Risso (2009) compare information asymmetry in emerging securities markets vis a vis to information asymmetry in the developed securities markets. They establish that market experience (older and developed markets compared to new emerging markets) is an essential contributor to information asymmetry. Markets that have been in operation for longer are more likely to experience a lower prevalence of information asymmetry compared to new emerging markets attributable to various levels of information assimilation. While it is evident from the studies mentioned earlier that information asymmetry is more prevalent in emerging markets, it is unclear how it leads to EM, more importantly for SEOs in emerging markets of Africa. Furthermore, corporate managers are more likely to manage earnings where regulations are lax, and the financial statements prepared are unlikely to attract more in-depth public scrutiny. For instance, Gkillas et al. (2018) rightly observe that the context may apply to African securities markets which are likely to exhibit information asymmetry.

Also, it is important to note that the evidence emanating from studies in emerging markets has mostly dwelt on Asian countries as proxies for emerging markets with limited studies focusing on Africa (from the comprehensive empirical literature review in chapter 3). The quest to fill this research gap gives fresh impetus for undertaking this study dwelling in the area of EM, SEOs, and firm performance with particular emphasis on the African securities market.

1.7 Research Objectives

The main objective of this study is to investigate the nexus between EM and the financial performance of SEOs in selected African securities markets.

The secondary objectives are to:

- Establish the extent of EM in SEOs and its consequent effect on firm performance in African securities markets.
- Decompose EM into accrual-based EM and real EM and establish their relationship in SEOs in African securities markets.
- Examine the relationship between EM and short-run financial performance of SEO in African securities markets.
- Examine the relationship between EM and long-run financial performance of SEOs firms in African securities markets.
- Examine the role of corporate governance in mitigating EM during SEOs and the effect on firm performance in African securities markets.
- Investigate the extent of the relationship between EM and earnings quality and firm performance in SEOs within the African securities market.
- Investigate the effects of information asymmetry on EM and SEOs' financial performance in African securities markets.

1.8 Contribution of this Study to the Existing Body of Knowledge

The essence of a good study is to make an invaluable research contribution to the existing body of knowledge. This study endeavours to make some theoretical, empirical, and methodological contributions. Specific contributions under each category are itemized in the following section.

1.8.1 Theoretical Contribution

A theory is vital in formulating broad generalizations about existing phenomena in an area of study and, therefore, should have the potential to explain an observed phenomenon (Crane, Henriques, Husted and Matten 2016). Examination of the extant literature suggests that existing theories explaining the relationship between EM and financial performance is limited, mixed and inconclusive. This study endeavours to make a theoretical contribution in several ways.

Firstly, this study is primarily anchored on the information asymmetry theory which posits that there exists a degree of information disproportion between market participants such as investors and shareholders (Dai, Kong and Wang, 2013). Information asymmetry hinders investors from gauging that SEOs financial statements may be earnings managed. This study aims at demystifying the role of EM in information asymmetry. It aims at filling a gap in the information asymmetry theory by providing clarity on whether EM in SEO is an attribute or a precursor to information asymmetry.

Secondly, this study seeks to shed light on whether EM in SEOs is attributable to agency theory. Agency theory posits that managers are prone to giving their interests priority at the expense of shareholders. For instance, Jiraporn, Miller, Yoon, and Kim (2008) aver that EM may be opportunistic or beneficial to the firm. However, there exists a paucity of conclusive evidence to the overall effect of EM in agency theory in the context of African securities markets. By building on prior studies on agency theory and EM, this study aims to fill a gap in this theory by shedding light on the link between agency theory and EM in SEOs.

Lastly, this seeks to establish a clear connection between signalling theory and agency theory as well as the association between these theories concerning EM in SEOs. Findings from this study seek to build the case on whether these theories play a role in the phenomenon investigated or

shed light on whether the relationship between the subject of this study and these theories is spurious.

1.8.2 Empirical Contribution

This study endeavours to make an empirical contribution in several ways. Firstly, this study primarily contributes to empirical evidence on the presence and extent of EM in SEOs in African securities markets. Empirically, by establishing a clear nexus between EM and SEOs performance both in the short and long term, findings are useful in adding knowledge in the area of EM in African emerging markets securities markets.

Secondly, to the best of the researcher's knowledge, this study is among the first of its kind to examine the relationship between EM and SEO in the context of African emerging markets. The study is further enhanced by continuously emerging data that has become available. A preliminary review shows that the value of SEO deals in Africa has progressively increased in size, reaching an apex of USD 8.03 billion, involving 12 countries and African securities markets.

Thirdly, this study seeks to empirically examine the effects of AEM and REM on SEO performance. Prior literature suggests that EM can be itemized into AEM and REM. However, the link between these two categories of AEM and REM concerning the African securities market remains unclear. Little is known on the association between these two categories of EM and the financial performance of SEOs. This study attempts to decompose and provide clarity on this envisaged association.

Fourthly, a clear link needs to be established empirically on the impact of corporate governance on EM in SEOs. Although the literature documents that adoption of best corporate governance practices, by and large, mitigates against EM in firms, evidence remains mixed on whether these practices can specifically mitigate against EM in SEOs. Moreover, this study also seeks to establish the link between information asymmetry and EM in SEOs. On the same note, the study

delves into the effects of EM on the earnings quality of SEOs. Available literature does attest to an association between earnings quality and EM. However, this relationship needs to be empirically tested. Findings are useful in determining whether earnings quality is impaired if EM manifests itself in SEOs in the context of African emerging securities markets.

Lastly, this study seeks to add to the existing body of knowledge on EM in SEO by shining the spotlight on emerging economies of the African securities market. As previously pointed out in the motivations for research as well as the research gap, a sizable number of studies are concentrated in the developed Western financial markets. With Africa being the home of some of the fastest-growing economies in the world, the notion of the 21st Century "Africa is rising" narrative requires to be supported by actual empirical evidence.

1.8.3 Methodological Contribution

This study employs a battery of tests as well as robust empirical analysis to ensure the results are consistent and reliable. Also, it relies on a host of existing methodologies to test for EM in SEOs.

1.8.4 Significance of the Study to Key Stakeholders

This study aims to enhance the understanding of EM and SEOs in the African securities market context. The findings of this study are of particular importance to various stakeholders as follows.

Firstly, investors who sacrifice their funds' consumption to take up equity during SEOs should have a better understanding of whether EM does indeed take place and how prevalent it is. Therefore, it is critical to establish the extent of EM in SEOs and non-SEOs in African emerging markets as this will enable investors to understand the inherent risks and make investment and pricing decisions on the offers subsequently made. Furthermore, findings from investigating the link between EM on the one hand with earnings quality and information asymmetry, on the other hand, will aid investors in masking better financially sound decisions with regards to SEOs.

Secondly, the findings will be of particular importance to shareholders and directors who exercise their oversight role on corporate decisions. Observing incidences of EM and their scope will aid them in monitoring and making decisions while managing firms and monitoring manager performance. Furthermore, the disaggregation of EM into AEM and REM will aid in understanding managerial actions, thus, increasing the ability to monitor their actions. Establishing the role corporate governance plays in mitigating EM will guide SEO investors and directors in exercising their oversight responsibility. These findings are especially critical for firms that employ share-based compensation for their top executives.

Thirdly, regulators will be able to propose and implement corporate governance best practices that seek to address EM. The adoption of best practices is a continuous process where new ones are adopted, and old ones are retired. In their quest to promote accountability and transparency, regulators can propose appropriate best practices that will cultivate investor confidence and promote financial development in African emerging markets. Moreover, these best practices undergo a metamorphosis and become potential investors safeguards that prevent managers from intentionally inflating earnings, which increases share prices, subsequently, increasing the cost of investment in SEOs.

Lastly, this study aims at demystifying management actions and shedding light on their impact on financial statements. Relying on the findings of this study, investors can exercise judicious judgment when investing in SEOs.

CHAPTER TWO
THEORETICAL FRAMEWORK

2.1 Introduction

The fundamental theories underpinning this study are the information asymmetry theory, the agency theory and signalling theory. Examination of these theories is critical in understanding managerial decisions with regards to pursuing EM in SEOs in the context of African securities markets. In a nutshell, the information asymmetry theory is relevant in the study in explaining the asymmetric information between managers and SEOs financial statements external users. The agency theory becomes useful in explaining the differences in goals between managers and investors in respect of SEOs. Then, the signalling theory is critical in explaining the financial performance outlook of a firm will take when it decides to issue an SEO.

2.1.1 Goal of this Chapter

This chapter reviews the theoretical framework on which this study is anchored. The study is grounded on the following theories: information asymmetry, agency, and signalling theories. The study relies on the three theories to explain the concepts surrounding EM in SEOs and its impact on firm performance.

2.2 Information Asymmetry Theory

2.2.1 Definition of Asymmetry Theory

Information asymmetry theory is a crucial theory underpinning the study of EM in SEOs. It refers to the study of decisions in transactions where one party has more or better information than the other party while undertaking the same transaction. Information asymmetric theory suggests that managers have superior information about the true value of both the firm's assets in place and its future growth opportunities (Booth and Chang, 2011). EM arises in an information asymmetry framework that allocates room for management to subtle alter or manipulate financial reports.

The existence of information asymmetry is an enabler for firm management to get away with this practice. Dai, Kong, and Wang (2013) describe information asymmetry as the degree of information inequality in the amount of information held by different market participants. Therefore, EM takes place in the sphere of information asymmetry. Earnings information is subtly altered by those responsible for its preparation, to influence investor decision making during SEOs.

2.2.2 Information Asymmetry as an EM Precedent

Arguably, information asymmetry is a precursor to EM. The empirical evidence available shows that EM takes place in the sphere of information asymmetry. Moreover, studies allude to a positive relationship between information asymmetry and EM. For instance, Dai et al. (2013) investigate how information asymmetry and mutual funds ownership affects listed companies' EM. Findings show that firm actions that reduce information asymmetry result in improved firms earning management behaviour. Reduction in information asymmetry leads to a subsequent reduction in EM. Moreover, by classifying firms in the study into high or low information asymmetry groups, the authors find that the information environment significantly increases the effect of long term mutual funds on firms earning management. Additionally, Cormier, Houle and Ledoux (2013) investigate the link between information asymmetry and EM and considering information uncertainty. Their results show that an accountable and transparent reporting criterion in firms weakens the relationship between information asymmetry and EM. Greater transparency and accountability in a firm reduces information asymmetry and consequently, it results in a lower prevalence of EM.

2.2.3 Information Asymmetry and Earnings Quality

EM affects negatively, the information value of financial reports. Earnings managed statements do not give a full picture of the affairs of the firm, therefore, impacting negatively on earnings

quality. Thus, it can be said that EM impacts the earning quality of financial reports. Research on the link between information and asymmetry and earnings quality is, therefore, relevant to EM. Inconsistences between discretionary accruals (a common proxy for EM) and the actual firm's cash flows impact negatively on the information content of reported earnings and subsequently lower the quality of earnings depicted. To illustrate this, Bhattacharya, Desai, and Venkataraman (2013) examine the relationship between information asymmetry and earnings quality while relying on the evidence of trading costs. The authors posit that the extent to which discretionary accruals are consistent with the actual firm's cash flows is a good determinant of the quality of the accounting information. Furthermore, it is observed that poor earnings quality results in differentially informed investors and therefore exacerbates the negative effects of information asymmetry in the financial markets. For instance, Bhattacharya, Ecker, Olsson, and Schipper (2009) investigate the link between information asymmetry and earnings quality. It is established that information asymmetry impacts earning quality negatively. The higher the level of information asymmetry, the lower will be the level of earnings quality. So, it can be inferred that earnings quality is essentially improved through the reduction of information transparency. So, it is crucial, for information asymmetry in firms to be addressed through effective information disclosure systems. Reduction in information asymmetry will subsequently reduce the prevalence of EM and thus, increase the level of earnings quality.

2.2.4 Information Asymmetry and SEOs

The impact of information asymmetry on EM and the subsequent impact on SEOs merit further review. Ordinarily, EM typically stems from the firm managers' inclination to present earnings that paint an overly optimistic view than the true and fair view position. These EM practices influence investor judgment by compelling them to subscribe to SEOs. On the other hand, when managers are hesitant to exercise their discretionary powers in manipulating accruals, it can be said that the financial reports have been prepared conservatively. Accounting conservatism

lowers the level of managerial discretion in preparing accounts and by extension management. Arguably, conservatism in presenting the financial statements mitigates EM. Conservatively prepared reports are less likely to subject investor judgment to undue influence by compelling them to subscribe to SEOs. Similarly, SEOs, in the long run, tend to financially underperform, an attribute that can be linked to earnings manipulation through preparing highly optimistic financial statements instead of the recommended practice of accounting conservatism. For instance, Yongtae, Siqi, Pan, and Luo (2013) examine the role of accounting conservatism in IPOs and SEO and establish that ordinarily, firms that prepare their reports with a greater degree of conservatism experience less negative market reactions to SEO announcements. Accounting conservatism affects SEOs announcement returns by mitigating the negative impact of information asymmetry. Thus, investors, reward accounting conservatism in the financial statements through the consistent market valuation of IPOs and SEOs issued by those firms whose accounts are prepared conservatively.

Information asymmetry between managers, shareholders and potential investors has also been attributed as the cause behind significant price drops on the SEO announcement day return. Investors tend to adjust their valuation of shares as new information comes to light immediately after the SEO announcement date as well as during the post SEO issue period. Similarly, a high degree of information asymmetry between managers and SEO investors contributes to a significant price drop in the SEO price after the announcement date. For example, Booth and Chang (2011) analyse the relationship between the dividend-paying status of a firm and the SEO announcement day return. While referencing the information asymmetry theory, the authors infer that there should be a positive relationship between the two variables. The larger the information asymmetry degree, the bigger should be the price drop on the SEO announcement day.

2.2.5 Information Asymmetry and Cost of Equity

Firms issue SEOs to satisfy their capital financing needs while ordinarily trying to maximize the proceeds of the SEO. Investor reaction and reception to the SEO offer is, therefore, an important consideration. If investors hold a favourable view of the SEO offer, they will require a lower rate of return on their investment. If they perceive financial risk is high in the SEO, they will incorporate a risk premium which pushes up the cost of equity. In finance, the cost of equity is the return or rate of return a firm theoretically pays to its equity investors such as shareholders to indemnify them for the risk they undertake by investing their capital. Managers who seek to maximize proceeds from the SEOs must consider potential costs associated with the cost of equity.

Besides, information asymmetry is envisaged to have an effect on a firms' cost of equity, which is a significant consideration in SEO. To explain this further, Armstrong, Core, Taylor, and Verrecchia (2011) examine how information asymmetry among investors affects the cost of capital over standard risk factors. The authors aver that when equity markets are perfectly competitive, information asymmetry has no separate effect on the cost of capital. Imperfect markets, to the contrary, do affect the cost of capital. The authors establish that consistent with typical prediction, information asymmetry has a positive relation with firms' cost of capital above standard risk factors when markets are imperfect. Moreover, Fu, Kraft, and Zhang (2012) probe the impact of financial reporting frequency on information asymmetry and the cost of equity. The authors establish that higher financial reporting frequency in firms reduces information asymmetry and the cost of equity. Thus, it can be inferred that the frequency of financial reporting increases transparency which in turn mitigates against information asymmetry. Besides, listed public firms face more stringent disclosure requirements from regulatory bodies. Stringent disclosure requirements potentially mitigate against information asymmetry, which in return lowers a firm's cost of capital.

There exists a relationship between information asymmetry, SEOs, and debt issuance decisions by firms. The consensus is premised on the notion that more significant information asymmetry makes issuing information-sensitive securities costlier. Besides, firms with high information asymmetry can benefit the most by issuing SEOs when the amount of information asymmetric is temporarily low. To illustrate this, Autore and Kovacs (2010) investigate the intertemporal choices between information asymmetry and share offers with a focus on firms that drive this decision. Intertemporal choices are optional decisions that have consequences in multiple periods. The intertemporal choice[20] becomes more evident when equity financing becomes more attractive during the period when the information asymmetry of a firm is low compared to its recent past. The authors provide evidence of an intertemporal relation between share issues such as SEO and information asymmetry. When information asymmetry for a firm is low compared to its recent past, the firm is more likely to issue equity as opposed to debt. Besides, it is noteworthy that firms drive intertemporal association with high levels of information asymmetry. Moreover, an SEO is more likely to take place when there is a reduced window period of information asymmetry in a firm. This is premised on the reliable assumption that more significant asymmetric information makes it costlier to issue information-sensitive securities.

[20] Intertemporal choice or intertemporal relation is an economic term used to describe how an individual's current decision influences what options are available in the future. An intertemporal choice requires a decision maker to make a trade-off between benefits and costs at different points in time.

The relationship between equity issues and future share returns, considering information asymmetry has been controversial. It is challenging for researchers to settle on common ground. Some studies argue that SEOs underperform the market in the long run while other studies tend to disapprove of this widely held notion. For example, Loughran and Ritter (1997) suggest that SEOs firm's exhibit financial underperformance when compared to market indices and matching share three to five years after going public. On the one hand, prior studies have also proved right prior hypotheses indicating that equity issues are negatively associated with future returns in light of information asymmetry (Lyanndres, Zhang and Sun 2005; Ritter, 1991; Spiess and Affleck-Graves, 1995). Conversely, a few exceptional studies disapprove of the notion that SEO underperforms the market in the long run (Brav, Geczy, and Gompers, 2000; Butler, Grullon and Weston, 2005; Masulis, 1999; Mitchell and Stafford, 2000). A common denominator in all these studies carried out is that underperformance of SEO takes place in the presence of information asymmetry and ultimately impacts the cost of equity demanded by investors when they participate in share issues.

Under information asymmetry, overvalued firms issue SEOs immediately to take advantage of their overvaluation, whereas undervalued firms adopt a "wait and see attitude" until the market corrects their undervaluation. Undervalued firms are, consequently, reluctant to issue SEO at the point of undervaluation since the SEO proceeds are unattractive. Discrepancies in valuation can be attributed to information asymmetry between managers and investors. Partly, this explains why the price of a share falls immediately following the SEO issuance. To further shed light on the relationship between information asymmetry and future share issues as well as the cost of equity, Jiang and Lee (2013) develop a time series model based on information asymmetry that allows them to test the predictive power of equity and debt issues concerning future market returns. The authors consider potential feedback from past market returns and structural breaks as well as cointegration relations among share prices, equity issues and debt issues. They

establish that managers' equity and debt issue decisions have predictive power for future market returns. Also, the authors note that under information asymmetry, overvalued firms issue SEO immediately; whereas undervalued firms will adopt “a wait and see” attitude until the undervaluation is corrected. It can be inferred from these studies that; information asymmetry and the cost of equity are significant considerations when issuing SEOs.

2.2.6 Information Asymmetry and Corporate Governance

Investments decisions made by investors are highly influenced by information available which is asymmetrically distributed among the various parties such as investors, shareholders, and management. Corporate governance is one of the various measures employed to reduce the degree as well as mitigate the effects of information asymmetry. Corporate governance can be regarded as a robust tool for tackling information asymmetry. Generally, corporate governance has therefore been established to hurt information asymmetry and by extension, EM (Chen, Elder, and Hsieh, 2007; Dimitropoulos and Leventis, 2012).

It is argued that EM in SEOs takes place in the absence of robust corporate governance practices. Enforcing governance best practices will, therefore, mitigate against EM, which is more prevalent where there is a high degree of information asymmetry. To support this assertion, Salehi, Rezaie, and Ansari (2014) probe the impact of corporate governance mechanisms on information asymmetry and establish a positive and significant relationship between the number of board members in a company, percentage of institutional ownership and information asymmetry. Besides, the findings show a negative relationship between ownership concentration and information asymmetry.

Also, it has been suggested that voluntary disclosure reduces information asymmetry between managers and investors. Best governance practices advocate for voluntary disclosure as a useful

tool for mitigating information asymmetry. For instance, Cormier, Ledoux, Magnan, and Aerts (2010) scrutinize the impact of governance on information asymmetry between managers and investors. In the study, corporate governance encompassed formal monitoring attributes (board and audit committee size) and voluntary disclosure about board processes. Share price volatility or Tobin's Q[21] is used as a proxy for information asymmetry. The authors establish that some formal monitoring attributes, as well as voluntary governance disclosure about board processes, reduce information asymmetry.

2.2.7 Information Asymmetry and Lock Ups Agreements in SEO

The extant evidence suggests that lock-up agreements are used to address the challenges presented by the presence of information asymmetry in firms. Legally, lock up agreements are binding contracts between underwriters and firm insiders. In the agreement, underwriters inhibit firm insiders from selling any shares for a specified period. Apart from ensuring trading stability during and after the SEO, lock-ups work in preventing opportunistic behaviour by firm insiders which could result in shares being dumped at a lower price to unwitting investors. Lockups in

[21] Tobin Q ratio developed by Nobel Laureate James Tobin is a useful method for estimating the fair value of the stock market. It is a measure of firm's assets in relation to a firm's market value.

general, therefore prevent firm insiders from selling whole or some percentage of their equity during post SEO periods (Ahmad and Jelic, 2014).

The rationale for a lock-up agreement is anchored on an underlying assumption that managers have an informational advantage that poses risks for new investors and underwriters during share issues. The information advantage edge that managers possess can be attributed to information asymmetry. For example, Karpoff, Lee, and Masulis (2013) document the frequent use of lock-up a contractual agreement in SEOs and examine the determinants of their use, duration, and early release. Locks up agreements are binding contracts between firm insiders and underwriters that prohibit the insiders from selling any securities for a specified period after the SEO. The authors establish that the likelihood of an SEO lock up and its duration is positively related to issuer information asymmetry measures. In summary, the lock-up agreement represents a contracting solution to asymmetric information that plagues SEOs. Also, lockups encourage greater investor participation and lower firm issuing costs.

2.2.8 Information Asymmetry, Earning Forecasts, and Insider Trading

In some cases, managers are required to prepare earnings forecasts which indicate reasonable expectations and projections about the firms' future performance. Earnings forecasts by firms are also prone to EM considering information asymmetry within the firms. The difference in the information contained in the hands of managers and investors accounts as a primary source of information asymmetry. Earnings forecasts are projections made by management about the probable future performance of the firm. Shareholders expect managers to issue favourable earnings forecasts and the subtle pressure to present acceptable earnings creates additional room for EM to take place. To begin with, Kraft, Lee, and Lopatta (2014) explore the relationship between management earnings forecasts, insider trading, and information asymmetry and investigate whether management used AEM to meet earnings forecasts before buying or selling

their shares when they have private information. It is established that management held stock sales are negatively associated with future returns, indicating that firm insiders tend to rely on insider information.

Managers are likely to meet their firm earnings forecasts when they plan to sell shares. They tend to engage in earnings manipulation by presenting overly optimistic statements to influence the market valuation of the firm and by extension, the share price on the SEO announcement date. Kraft et al., (2014) rely on differences in the timing of trades by firm insiders such as directors and large shareholders to infer information asymmetry. The authors establish that the timing of management held stock sales while no other insiders' stock sales took place at the same time is a good indicator of asymmetric information between senior firm officers[22] and other insiders. Management held stock sales are negatively associated with future returns indicating that the officers tend to rely on insider information; hence they are capitalizing on information asymmetry.

[22] Senior firm officers are the top management of the firm such as CEOs, (Chief Executive Officer), CFOs (Chief Finance Officer) and COOs (Chief Operating Officers). These officers are insiders of the company who are privy to the actual true information about the company.

Besides, earnings forecasts have also proven to be a useful proxy for information asymmetry in the study of EM. Information asymmetry is significant because firms that are more informationally opaque may engage in a higher degree of asymmetric information, making it more challenging for shareholders and investors to monitor managers. More significant monitoring complexities improve managers' likelihood to abuse their discretion over the firms' earnings. Jiraporn, Miller, Yoon and Kim (2008) employ analysts' earnings forecasts errors and the dispersion of analysts' earnings forecasts as a measure of information asymmetry. The authors rely on information asymmetry as a control variable as they investigate whether EM is considered opportunistic or beneficial. It can be inferred that the quality of earnings forecasts is a useful pointer of information asymmetry which has a subsequent effect on EM.

Generally, insiders, directors, and managers are in a vantage position to know more than outsiders about their firms. They rely on that knowledge to trade profitably in shares of their firms. Arguably, information asymmetry precedes insider trading with earning management acting as a link between the two. Insider trading profits are also attributable to mispricing of stock as well as superior knowledge of future outcomes.

There exists a supposed link between information asymmetry, insider trading, and EM. For example, Sawicki and Shrestha (2008) analyse the relationship between EM and insider trading while focusing on whether discretionary accruals are related to insider trading in a firm and if they influence its valuation. They establish substantial evidence of insiders managing earnings downwards when buying shares and on the other hand, managing earnings upwards when selling.

Moreover, value firms[23] manage their earnings upwards compared to growth firms[24], which is consistent with the signalling hypothesis.

To further shed light on the close linkage between insider trading, information asymmetry, and EM, Baryeh (2012) attempts to resolve the literature regarding the pattern of insider trading around EM by examining the relationship between earning management and contrarian insider trading around SEOs. A contrarian investment strategy is designed to go against the prevailing market trends and investor sentiments and involves buying underperforming securities and subsequently selling them when they perform well. The authors establish that insiders of firms conducting SEOs are contrarian. Firm managers in firms undertaking SEOs buy current losing stocks and sell recent gaining shares. So, arguably, information asymmetry is antecedent to EM, which is more prevalent around SEOs and has a subsequent impact on firm performance.

2.2.9 Summary of Information Asymmetry Theory

The information theory is the leading theory which underpins this study. A consensus emerging from the literature review shows that information asymmetry is one of the incentives for

[23] Value firms have a high book to market value ratio.
[24] Growth firms have a low book to market value ratio.

managers to engage in EM while issuing SEOs in African securities markets. Normally, information asymmetry precedes EM and SEOs, leads to a deterioration of earnings quality, and is mitigated by acceptable corporate governance practices. Lock-up agreements during SEOs shield investors from adverse managerial actions occasioned by EM and information asymmetry. Surely, EM warrants a more profound understanding since the evidence shows that it is a precursor to the more detrimental insider trading.

2.3 Agency Theory

2.3.1 Definition of Agency Theory

The rise of the corporate form of business in modern times has led to the separation of managers and owners. Although this separation is necessary for good stewardship, it has led to the rise of agency problems because managers (agents) may not always act in the best interest of owners' stakeholders. In its most basic form, agency theory is concerned with explaining and resolving problems that arise due to differences in goals between the principal and the agent in a transaction. The most common agency relationship in finance occurs when there are conflicting goals between shareholders (acting as the principal) and the company officers (acting as agents). In the realm of EM, SEO and firm performance, agency theory is used to explain specific accounting issues such as conflicts of interest, incentive problems, as well as mechanisms for controlling agency problems (Bukit, Takiah, and Iskanda 2009).

Conflicts of interest are common because the shareholders (acting as the principal) have entrusted managers (acting as agents) to implement their strategy. Shareholders' interests may not always be aligned with the managers' interests. The managers may not act in the best interest of the firms' shareholders, creating a source of agency conflict. In the context of EM and SEOs, managers may have incentives to engage in EM to the detriment of SEO investors who subsequently rely on the financial information to make judgments.

2.3.1 Agency Theory and EM in SEOs

Firm managers' self-interest is attributed to be one of the primary sources of agency conflicts. Subsequently, these conflicts spawn off agency costs as shareholders who are the principals in attempting to address the agency conflicts. Agency costs are, therefore bound to arise when managers do not maximize shareholder value. If EM is utilized opportunistically by managers, firms, where agency costs are severe, should exhibit a higher degree of EM. The extent of EM is

positively related to the gravity of agency conflicts. The higher the level of agency conflicts, the greater will be the level of EM (Jiraporn, Miller, Yoon and Kim, 2008).

Agency theory is used as a tool to determine whether EM is opportunistic or beneficial to the firm. Earning management is taken to be opportunistic if managers engage in it to influence investor judgment in SEOs. On the other hand, EM is argued to be beneficial if it improves the information value of earnings by conveying private information to the shareholders and the public. For example, Jiraporn, Miller, Yoon, and Kim (2008) rely on agency theory as a platform to distinguish between the opportunistic and beneficial uses of EM. Data on corporate governance is used as a proxy for agency conflicts while abnormal accruals serve as a proxy for EM. The empirical evidence documents a negative relationship between agency costs and EM. Therefore, higher agency costs are associated with lower incidences of EM and vice versa.

Further, the relationship between agency costs and EM is manifested by the managers (agents) selective and discretionary reporting of economic events. Due to EM, financial statements tend to be an approximation rather than an economic reality. The tendency to delay recognition of some transactions through reliance on discretionary accruals creates a difference between actual and imaginary results. The discrepancy between actual versus imaginary results becomes the source of agency problems (Palliam and Shalhoub, 2013). Then EM can be surmised to be an effort among agents to specify the contents of financial reports to satisfy consensus earnings estimates and to project a smooth earning path. Agency theory plays a critical role in explaining agents' actions of accelerating or differing expenses or revenues through influencing transactions with the primary objective of producing consistent growth in earnings.

2.3.2 Agency Problems and Free Cash Flows

EM is likely to occur when managers possess excess discretion to implement various acceptable accounting accruals in the determination of reported income. Consequently, the existence of serious agency problems in a firm is likely to be a catalyst for earnings manipulation practices. Empirical evidence available suggests a link between EM, agency problem and the concept of free cash flows. For instance, Jensen and Meckling (1976) identify free cash flows (FCF) as one of the sources of agency problems. He defines FCF as cash flow more than that required in financing all projects that have positive net present values when discounted at a reasonable cost of capital. Free cash flow is a measure of how much cash a business generates after accounting for capital expenditures. Prior research suggests that companies experiencing excessive free cash flow (FCF) usually are associated with agency problems. Managers of firms with high FCF and low growth opportunities tend to invest in marginal or even negative net present value (NPV) yielding projects and subsequently rely on EM to smoothen income and camouflage the negative effects of non-wealth maximizing investments (Rahman and Mohd Saleh 2008).

Further studies also seek to shed light on the relationship between EM and FCF in the context of the agency theory. For example, Bukit et al. (2009) examine whether high surplus free cash flows are related to earning management. The evidence suggests that managers of high surplus FCF companies have incentives to engage in EM. The authors establish that independent audit committees provide a useful monitoring role over EM. Moreover, the presence of an independent audit committee assists companies with high surplus free cash flows to reduce income increasing earning management practices. It is further disclosed that agency problems are more evident if both the shareholders and managers are wealth maximizers because of the presumption that managers will not act in the best interest of shareholders and potential investors. For that reason, agency theory provides logical predictions about what actions managers and shareholders will choose if placed in such a relationship.

Excessive FCF tends to exacerbate the agency problem, which consequently gives rise to EM. Astami, Rusmin, Hartadi, and Evans (2017) focus on companies experiencing excessive free cash flow as these companies have been associated with an agency problem. The evidence shows that managers of companies with excessive cash flows will make investment decisions that are not always in the best interest of the shareholders and use accounting discretion to increase reported earnings. These findings align with the agency cost perspective, which argues that firms with low growth opportunities tend to invest free cash flow in less profitable projects. For instance, Rusmin, Astami, and Hartadi (2014) investigate whether high FCF companies with low growth opportunities (with surplus FCF) are associated with income increasing EM. The authors also scrutinize the effect of audit quality on the income increasing EM, surplus free cash flows and EM relationship. Empirical evidence supports the hypothesis stating that managers of corporates with high free cash flow and low growth opportunities tend to use their discretion to select income increasing accounting choices. Also, audit quality is negatively correlated to EM.

2.3.3 Agency Theory in Seasoned Equity Offerings

Agency theory explains managers' incentives to issue SEOs while shareholder investment horizon expectation determines the extent of a firm's agency problem. Shareholder investment horizon refers to the duration in which a shareholder will hold his share before selling it. Investors with a shorter horizon have less incentive to spend resources in monitoring as they are less likely to remain shareholders of the firm long enough to reap the corresponding benefits. To illustrate this, Hao (2014) investigates the relationship between institutional shareholder investment horizons and SEOs. The author argues that managers issue SEOs to benefit themselves at the expense of shareholders by capitalizing on market timing when the market has attached a high value to the firm. The self-interest incentive by managers can be attributed to a lower usage discipline of SEO funds compared to funds raised from debt which are subject to strict debt

covenants. The author also argues that the shareholder investment horizon is related to the likelihood of an SEO. Since short term investors have a lower incentive to monitor managers effectively, SEOs with a shorter-term horizon are expected to have a more severe agency problem in their equity issuance decisions.

Furthermore, agency theory manifests itself when managers exercise their discretion and engage in earning manipulation to present overly optimistic financial reports. Prior research shows some managers engage in EM to mislead rating agencies and markets about the true value of the firm share before share offers. To illustrate this, Caton, Chiyachantana, Chua, and Goh (2011) investigate whether managers mislead rating agencies and the bond market by carrying out EM around SEO. The authors examine EM efforts surrounding seasoned bond offerings using discretionary current accruals. SEO issuers tend to inflate earnings performance before an offering with the managers' practices of inflating EM around SEO constituting an agency problem.

2.3.4 Agency Theory and Corporate Governance

Moreover, agency theory is also linked to firm corporate governance. Firms adopt corporate governance practices to mitigate the effects of agency conflicts. Arguably, the existence of a board of directors that monitors management actions can go a long way in mitigating EM by ensuring transparency in the financial reports. The level of corporate governance across firms contributes to variations in EM. Prior research shows that variation in EM across firms in developed markets is often viewed as a function of firm-level corporate governance quality. It is envisaged that the higher the level of governance quality, the lower will be the incidences of EM (Jiraporn et al. 2008).

Firm ownership has considerable influence on the way the firm is managed. EM is likely to take place in firms that are controlled by a significant shareholder with minority shareholders having

lower legal protection. For firms with checks and balances, incidences of EM are likely to be lower. Implementation of corporate governance best characteristics such as non-executive directors, audit committees, segregation of duties and board monitoring all work towards mitigation of EM.

Prior research has attempted to demystify the link between firm ownership, corporate governance, and EM. For instance, Bao and Lewellyn (2017) incorporate firm ownership predictors along with national institutions dimensions to probe why firm decision-makers in emerging markets vary their EM behaviour. The authors rely on agency and institutional theories proposing that the corporate governance environment reinforces firm-level ownership mechanisms. It is established that controlling ownership is positively related to the level of EM. Furthermore, the regulatory quality strengthens the negative relationship between institutional ownership and EM activity. It can be inferred that high levels of regulation ensure EM activities are eliminated or maintained at minimum levels.

On the other hand, increased minority shareholder protection in a country weakens the positive relationship between controlling shareholders and levels of earning management. So, shareholder protection, stems from institutionalized adoption and enforcement of corporate governance regulations and practices. For example, Yang, Lai, and Tan (2008) examine the relationship between organizational structure and EM, where managerial structure influences how a firm is governed. The evidence suggests that discretionary accruals, a common proxy for EM, first increases then decreases with executive ownership. However, discretionary accruals are positively related to director ownership and block holder ownership.

This research suggests that equity stake owned by top officers should be encouraged to reduce agency costs and enhance the information content of earnings. Thus, it can be inferred that agency theory plays a significant role in EM, SEO and by extension, firm performance.

2.4 Signalling Theory

2.4.1 Definition of the Signalling Theory

In the realm of corporate finance, investors are always on the lookout for signs of sound financial performance or weakness among firms. Subsequently, they evaluate these signs and make a judgment based on how these signs will impact investments. Signalling theory emanates from the work of Holthausen and Leftwich (1983). The theory proposes that managers should exercise due discretion when conveying inside information to outside investors to assist investors to predict and form expectations on future firms' performance.

Firm signals, hence, play a crucial role in deciphering management's real intentions because announcements and real actions by management may not always align. When managers decide to raise equity through SEO as opposed to other possible avenues for raising funds such as internal financing and debt, this can be interpreted as a signal status of the firm's financial position and project prospects. Signalling theory is significant in describing behaviour when two parties (investors and firms) have access to different amounts and levels of information. In a nutshell, the signal sender chooses whether to communicate an information signal while the receiver decides on how to interpret the signal (Connelly, Certo, Ireland and Reutzel 2011).

2.4.2 Signalling Theory and Firm Valuation

Signalling theory is used in communicating to the market the true value of the firm. One of the primary reasons for engaging in EM is to influence the market perception of the firm to make it more attractive to potential investors. However, the pertinent issue that remains unclear is which signal is conveyed to potential investors' when a firm engages in EM. For instance, Hao and Yao (2010) seek to determine whether EM is an opportunistic or signalling strategy. The authors had earlier hypothesized that at the initial stage before a share issue for the first time, the market is unaware of a firm's economic earnings creation ability which could be high or low but remains

yet to be established. Usually, a firms' earnings ability is inferred from its accounting earnings. In this study, firms are classified into two categories; high-value firms and low-value firms with the classification determined by the firms' economic earnings creation ability. The authors argue that earning smoothing[25] is a signalling strategy for a high type of firm, and on the other hand, an opportunistic behaviour for a common type of firm. Furthermore, inadequate information and uncertainty about the firm type (whether high or low-value firm) in the market act as an enabler for management to engage in income smoothing. Similarly, Sun and Rath (2008) attempt to reconcile opportunistic behaviour and the signalling mechanism perspectives in earning management literature. The authors argue that EM is not necessarily detrimental; instead, it is a device to enhance communication with external parties and improve how SEO investors perceive a firm. Additionally, EM is a signalling mechanism that managers resort to while communicating their expectations of the firms' future performance to potential investors to maximize shareholders' wealth.

[25] Earning smoothing and earnings management are used interchangeably and the two phrases carry similar meaning.

2.4.3 Investor Signalling and Venture Capital-Backed Offerings

When firms send signals, they convey some insider value that is unavailable to investors. The core idea behind signalling theory is that because signalling costs often exceed the benefits that can be obtained from the transmission of signals, only a subset of firm senders who transmit positive signals reap benefits from the same signals when investors' reaction turns out to be favourable. When a public firm gives out a signal associated with good quality, it reduces SEO under-pricing because investors' trust in the firm will be high. For instance, Nam, Park, and Arthurs (2014) explore whether EM makes firms to look attractive just before they issue SEO. The authors consider how potential investors may guard against earning management by observing negative share price reaction at the contractual lock-up expiration period of the IPOs firms.

The lockup expiration period refers to the time threshold at which insiders of a newly public firm are no longer restricted from selling their shares. The authors establish that earning management behaviour is more potent in IPO firms backed by reputable venture capitalists (VCs). Yet, VCs' reputation, negatively moderates this relationship such that IPO firms backed by reputable VCs are less likely to manage earnings. Reputable VCs attenuate EM after an IPO. Signalling theory is manifested in this study when signals arising from multiple agents in an IPO firm are examined. Additionally, the theory is used to explain how negative signals influence firm outcomes. Cai and Zhang (2016) investigate the effects of venture capital on EM of IPOs in China and find that VC backed companies indicate fewer EM practices compared to non-VC backed companies. Hence, the evidence, suggests that for corporates equity issues backed by reputable VCs, there will be lower incidences of EM compared to non-VC-backed corporate equity issues. This is a signal that is used by potential investors to make appropriate judgments on prospective SEO offers.

2.4.4 Signalling by Indicated Usage of SEO Funds

Among high technology and other research-intensive firms, the commitment of funds to research and development is viewed favourably by investors. SEOs are likely to post better performance if the funds to be raised will be channelled to research and development (R&D). Signalling theory is also used to mitigate possible investor negative reactions to the announcement of SEO, particularly when a firm commits substantial future funds to its research and development capital expenditure. For example, Qian and Zhong (2012) assert that SEO issuers can use positive discretionary research and development investments before the SEO to signal their investment prospects to mitigate the negative SEO announcement effect. The authors establish credible support for the signalling hypothesis among high tech issuers. Moreover, investors' response to SEO is more enthusiastic to high tech issuers with positive discretionary research and development. The underlying assumption is that these issuers are more likely to utilize the newly acquired capital to improve post SEO performance. The SEO announcement, then, becomes a signal by firms to invite scrutiny on how they intend to use the SEO proceeds. Hull, Kwak and Walker (2010) examine insider behaviour around SEO and they establish that insiders will use research and development to signal positive news, a view that is consistent with the signalling hypothesis. A long-run commitment to capital expenditures supports the increase of R&D around SEO signals growth possibilities which are ordinary.

2.4.5 Signalling and the Under-pricing of IPOs and SEO

The signalling hypothesis has also played a critical role as the economic rationale of why under-pricing is experienced in both IPOs and SEO. Francis, Hasan, Lothian, and Sun (2010) revisit the signalling hypothesis while relying on evidence obtained from foreign IPOs. The firms considered in the study consisted of IPOs and SEO firms domiciled outside the US. Consistency with the signalling model, the authors infer that high-quality firms under-price their IPOs to separate themselves from low-quality firms, then, they recoup benefits from the SEO thereafter.

The act of under-pricing constitutes a signal to the market on the firms' value. A significant relationship is established between the levels of IPO under-pricing and SEO activities among segmented market firms. Firms are likely to forego immediate funds to get a more favourable price at SEO even when they are financially constrained. For the foreign firms sampled in the study by Francis et al. (2010), they face an uphill challenge in marketing themselves to US investors. Therefore, these foreign firms are likely to convey their quality private information by under-pricing their IPOs and subsequently recouping the IPOs proceeds foregone through an issue of shares in subsequent SEO.

In conclusion, the signalling hypothesis is a significant determinant of IPOs underpricing for firms from segmented markets. Usually, these firms face higher information asymmetry and have a greater need for external capital markets to satisfy their financing requirements. Zhang and Yu (2017) investigate the influence of VCs' IPO experience on the likelihood of foreign IPOs and SEO successes while relying on the signalling theory. The authors establish that VCs' experience in either the Chinese or US market increases the chances of listing in the US market. However, the Chinese experience in the US market plays the same role, but not in China. For that reason, the signalling theory provides a mechanism through which VCs may improve the legitimacy of the issuer company and thus facilitate foreign IPOs and subsequently, SEO.

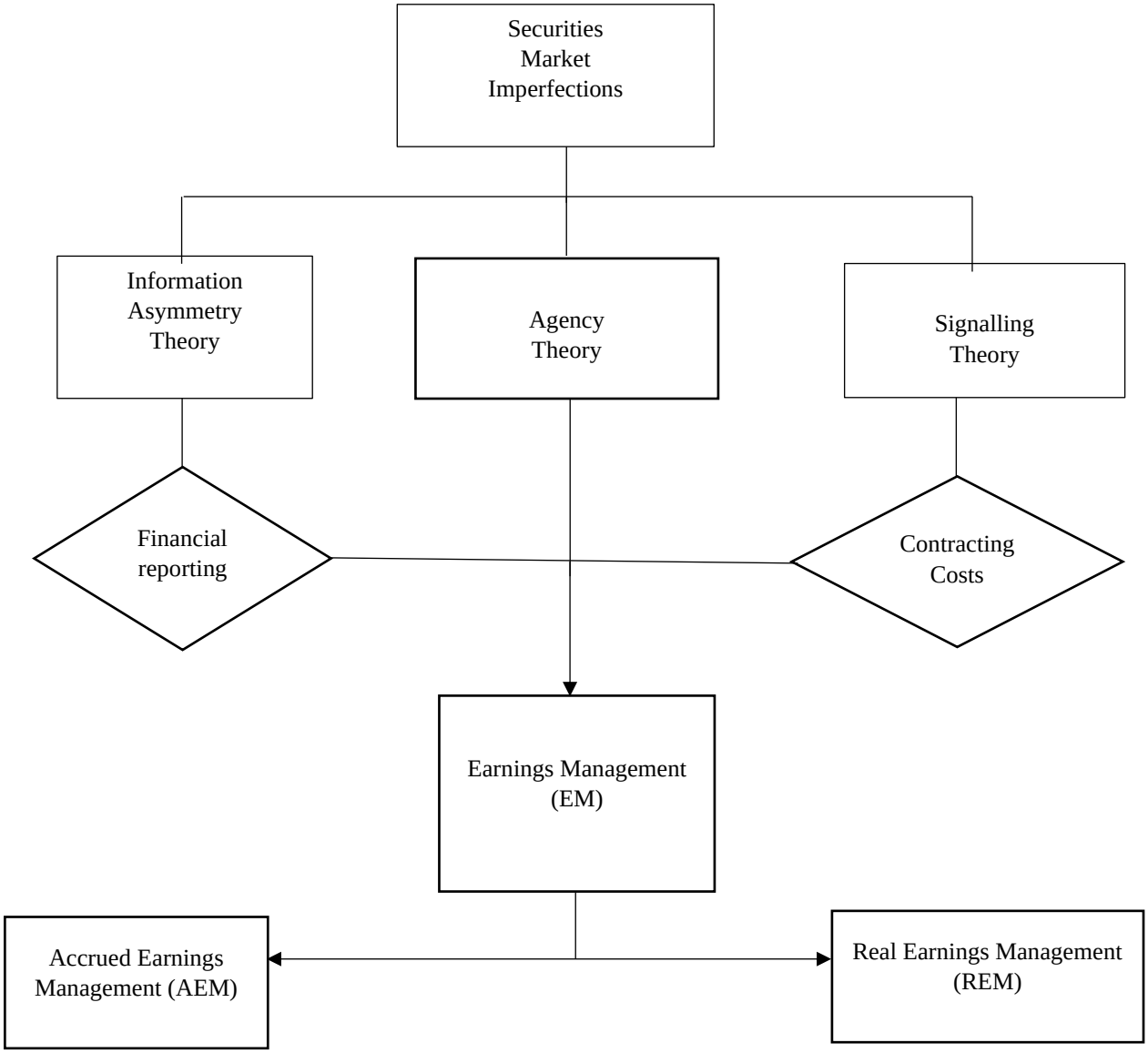
2.4.6 Signalling and Corporate Financial Disclosure

The level of corporate financial disclosure, which is an essential practice in mitigating against EM, is also influenced by the signalling theory. When leading firms in the same industry adopt a certain standard of reporting and disclosure, it compels other firms in the same industry to adopt it to remain in tandem. If a firm fails to keep up with the same level of disclosure as others, it may be perceived by stakeholders to be hiding some unfavourable news. For instance, Aly and Hussainey (2010) examine the potential factors that may affect the levels of corporate internet

reporting by Egyptian listed companies. The authors establish that 56% of Egyptian companies report a significant portion of their information on websites. Specific financial characteristics such as profitability, foreign listing and industrial type affected corporate disclosures. Also, the use of the internet to convey financial information signals the firms' high quality and profitability. Increased levels of financial disclosure, therefore, mitigate against EM. For instance, Iatridis and Kadorinis (2009) explore the potential financial motives for engaging in EM among UK listed firms and argues that firms with low profitability and high leverage measures are more likely to engage in EM. In addition, the view that voluntary accounting disclosure by firms has a mitigating effect on EM is supported by Iatridis and Kadorinis (2009) and Consoni, Colauto and Lima (2017).

2.5 Interlinkage between Theories and EM

Figure 2.11: Theoretical Framework and EM Link



Source: Author's reconstruction from underlying theories as well and Sun and Rath (2008:8).

Figure 2.11 illustrates the interconnections of the various theories discussed under the theoretical framework with all the three theories emanating from market imperfections. Financial reporting and contracting costs are the media on which EM is carried out. Also, EM is broken down into AEM and REM. The distinction between AEM and REM has been discussed in chapter one.

2.6 Theoretical Framework Summary

In this chapter, the discussion sought to address the main theories underpinning this study. A review of the literature shows the intersection between the three main theories and seeks to explain managerial incentives for engaging in EM while issuing SEOs in African securities markets. The next chapter seeks to shed more light on EM through an examination of empirical literature addressing the concept.

CHAPTER THREE
EMPIRICAL LITERATURE ON EARNINGS MANAGEMENT

3.1 Introduction

"*Financial statements tell us a story, but to what extent can we trust this story?*" (Shahzad, 2016).

In the wake of recent corporate financial scandals caused by bankruptcies of several large international firms, a crisis of confidence regarding the reliability of financial reports information and the effectiveness of control mechanisms has emerged, thus shining the spotlight on EM practices. This chapter attempts to shed light on EM and determine its effect on SEOs and firm performance.

Earnings refer to the profits made by a firm. Earnings constitute a crucial consideration in evaluating whether a company is financially sound and if it offers attractive future investment prospects. In ordinary practice, firms with lower earnings will typically have a lower share price because investors attach a low value to them compared to those with high earnings. Economic fluctuations have an impact on firms' earnings. In their quest to stabilize earnings and make them consistent, managers are inclined to engage in income smoothing and EM.

3.1.1 Goal of this Chapter

The goal of this chapter is to delve into the concept of EM and discuss the empirical evidence on the area of earning management and its consequent impact on SEO and firm performance. It will embark on identifying the gaps in the literature reviewed.

3.1.2 Layout of this Chapter

This chapter will be organized as follows: section 3.2 answers in depth what is EM, 3.3 justifies the focus for EM, 3.4 elaborates the impact of EM, 3.5 details the process by which EM takes place, 3.6 discusses the effects of EM on IPOs, SEOs, and firm performance.

3.2 What is Earning Management?

In their quest to maximize profit and shareholder value, managers may be inclined to engage in EM practices. Earning management refers to the practice of applying various accounting techniques and practices that present an overly optimistic view of the financial statements. The primary motivation for engaging in earning management is to influence investors' judgment based on the earnings managed in the financial reports. Various definitions have been put forward to decipher EM. For instance, Iatridis and Kadorinis (2009) describe EM as the use of discretionary accounting accruals by the firm's management to alter reported earnings. The practice is inspired by a market bias towards firms that show favourable earnings. Similarly, Yaping (2005) defines earning management as the purposive accounting measures taken by management to bring reported earnings to the desired level through exercising their discretion as accorded to them by prevailing corporate laws and financial reporting standards. Furthermore, Silva et al., (2014) describe EM as the employment of legally permitted accounting discretion by managers, in the selection practices of recognition and measurement of accounting elements, to deliberately manipulate earnings. Ordinarily, earnings are adjusted upwards or downwards to suit the managers' specific and immediate interest. Narayan and Dandale (2008) enunciate that earning management occurs when managers use judgment in financial reporting and in structural transactions to alter financial reports to mislead some stakeholders about the underlying performance of the company or to influence contractual outcomes that are dependent on the reported financial performance. Ajina and Habib (2017) describe EM as the discretionary acts by

managers involving accounting choices or the structuring of operations in such a way that it leads to a modification of the risk of wealth transfer of the enterprise.

In summary, EM can be termed as a purposive intervention in the process of preparing and presenting financial reports to external users with the primary goal of attaining a private gain. Although in some cases, EM is regarded as positive, in this study, it is perceived to be negative as it influences the quality of information used for decision making.

3.3 Does Earning Management Matter?

In the wake of recent corporate financial scandals that have made investors lose sizable amounts of their investments, attention is increasingly being drawn to the information veracity of the financial statement. Also, it is significant to note that a number of these corporate scandals involve falsification of financial reports. Regulators and industry practitioners are in a continuous process of designing new measures intended to curb or minimize cases of EM. A spectrum of studies, (Ali and Zhang, 2015; El Diri et al., 2020; Lo et al., 2017; Jiang et al., 2010) suggest that the impact of EM is measured by the extent to which it is prevalent and whether it leads to material misstatement of the information contained in the financial statements. Moreover, the increasing complexity of financial reporting rules and numerous transactions that take place in large corporations makes it arduous for investors to discern scandals before they come to light.

Empirical evidence sheds light on the significance of EM and the role it plays in influencing investor judgment when buying shares. For example, Bortoluzzo, Sheng, and Gomes (2016) examine EM in Brazilian financial institutions. They observe that EM in banking involves the use of loan loss provisions, which ultimately influences the number of earnings, reported in the financial reports. Additionally, bank managers engage in income smoothing to convey a consistent image of good performance to the market over several financial reporting periods. Due

to the critical role that banks play in the public financial domain as well as the financial wellbeing of the economy, any incidences of EM merits further attention and the extent of EM needs to be discerned.

Corporate governance challenges ordinarily do arise, which can be attributed to agency conflict. Shareholders and investors' wealth safeguards in firms are paramount in shielding them from losing the value of their investments. Investors require protection from managers who possess insider information because of information asymmetry and exploit it to their advantage through the practice of EM. For example, Enomoto et al. (2015) examine the differences between AEM and REM about investor protection. The strength of legal enforcement and the extent of outside investor rights are used as investor protection variables. The evidence shows that more robust investor protection in sampled countries to an extent constrains both types of EM. Additionally, developed securities markets are continuously increasing their monitoring ability of managerial discretionary behaviours. Leuz, Nanda and Wysocki (2003) provide further insight when they examine the systematic differences in earning management across several countries. They suggest that firm insiders rely on EM to conceal firm performance from outsiders to protect their private control benefits. Therefore, outsiders therefore reasonably expect robust investor protection to mitigate against EM.

EM plays a sterling role in depicting the true value of a firm. Firms with low profitability and high levels of debt are more inclined to boost their earnings by engaging in EM. With regards to the signalling hypothesis, the interrelationship between, a firm’s low profitability, leverage, and EM shows the significance that earning management plays in evaluating the fortunes of a firm. For instance, Iatridis and Kadorinis (2009) examine the motives and characteristics of UK firms that engage in EM activities. The authors focus on the provision for voluntary accounting disclosures, violation of debt covenants, management compensation, equity needs, and debt

needs of firms concerning EM. It is established that firms with low profitability and high leverage measures are likely to engage in EM. The study lays bare the significance of earning management and the role it plays in unearthing other possible issues affecting a firm's performance.

The nexus between EM and insider trading simply accentuates the gravity of EM in influencing the firms' decisions. Insider trading takes place in an environment of information asymmetry and EM exacerbates this practice. For example, Sawicki and Shrestha (2008) analyze the relationship between EM and insider trading. Specifically, the authors investigate whether discretionary accruals (a common proxy for EM) are specifically related to insider trading and valuation. They find that to enjoy higher profit margins, firm insiders (more specifically the management) manage earnings upwards when buying securities downwards when selling. Therefore, the evidence, suggests that earning management has an impact on investor judgment and it arises out of various management decisions.

To further argue the case for the significance of EM, research indicates that EM impacts the value of the information contained in the financial statements. EM is argued to be inversely related to value relevance, where value relevance is the ability of information contained in the financial statement to capture and summarize firm value. Ordinarily, high levels of EM reduce the value relevance of the financial reports while minimal incidences of EM increase the value relevance. Shan (2015) investigates whether EM reduces the level of value relevance and if adopting corporate governance best practices restrains EM. The author establishes that the negative impact on value relevance for firms engaging in EM is more significant than that of companies that have not engaged in EM. Furthermore, corporate governance mechanisms further restrain EM in firms with acceptable corporate governance best practices compared to those without them. In family-controlled firms, board independence is commonly called into question as it goes hand in hand with incidences of EM. Chi, Hung, Cheng, and Tien Lieu (2015) examines the relationship

between family firms and EM by considering the influence of board independence. The authors establish that a higher proportion of independent directors in family-managed firms reduces EM while incidences of CEO duality increase the probability of EM. CEO duality is a case where a CEO also serves as an executive director. Research evidence, therefore, shows the gravity of EM in firms and the critical role corporate management plays in mitigating against it.

Further, the existence of contractual relationships, such as lock-up agreements illustrate why EM merits additional analysis. Lock-up agreements are tailored to restrain company insiders such as management, employees, owners, and early-stage VCs from selling shares immediately after listing in an SEO. The presence of contractual lock-up agreements restrains insiders from engaging in EM to inflate their share value before quickly disposing it before an SEO. For instance, Nam et al. (2014) investigate how potential investors may guard against EM through observing negative share price reaction at the lock-up expiration period of IPOs firms as a negative signal. It is established that EM behaviour is more potent in IPO firms backed by VCs. However, reputable VCs are unlikely to engage in EM. Also, Karpoff et al. (2013) examine lock-up agreements in SEOs created by asymmetrical information which incentivize managers to engage in EM. The findings suggest that EM has an impact on SEO and contractual agreements do exist to mitigate against it.

3.4 Management Incentives for Engaging in EM

A firm's earnings are one of the useful tools available to assess a firm's performance. Any alteration in the content of earnings may substantially alter the judgment of investors who rely on earnings contents to make decisions. The term "incentive" refers to the motives or reasons which compel managers to engage in EM (EM). When financial reports are prepared according to their true and fair value proposition, they are supposed to be a fair reflection of the transactions that have occurred in the financial statements. However, this seldom happens as managers

exercise their discretion in the preparation of statements which gives rise to EM. There are various incentives for management to engage in EM. Among the incentives to highlight are those linked to SEOs. They include earnings benchmarks, income smoothing, equity incentives, borrowing costs and management buyouts. In this section, these incentives will be discussed.

3.4.1 Issuance of SEO Incentive

Share issues during an SEO, provide a direct incentive for management to engage in EM. When financial reports show high levels of earnings, share prices will likely increase as well, indicating an increase in market valuation and a reduction in the cost of capital. Several studies have sought to examine the role of managerial discretion in preparing financial reports around SEOs. More specifically, researchers have attempted to address the pertinent issue of whether managers engage in EM during periods surrounding the SEO (see, Ball and Shivakumar, 2008; Huang, Nekrasov and Teoh, 2012; Teoh, Welch, and Wong, 1998).

Research examining managerial actions around SEOs suggest that managers tend to be opportunistic and are inclined to engage in aggressive or high optimistic accounting decisions by issuing new shares at inflated prices. The consensus is that managers employ aggressive accounting decisions that bid up offer prices, thereby leading to a decreased level of under-pricing. The practice of earnings manipulation to possibly inflate share prices in an SEO can be termed as the "issuer's greed hypothesis." To further illustrate this hypothesis, Kim and Park (2005) examine the relationship between EM by firms offering SEOs and the pricing of their offers and find out that SEO firms that make opportunistic accounting decisions issue new shares at inflated prices. Therefore, EM increases the level of optimism potential SEO investors attach to the firms' earnings abilities. Also, it can be inferred that share issuers generally have an incentive to hike up share offer prices as it ultimately increases the issuer's wealth. The research

further underscores how the level of reported earnings, as influenced by EM, determines the pricing of the SEO, which ultimately incentivizes managers to engage in EM practices.

To further demonstrate the role of SEO as an EM incentive by managers, studies have been undertaken to illuminate the role of SEO as an EM incentive. The question which the studies have attempted to answer is whether SEO firm issuers manipulate earnings around SEO and if the practice has any discernible impact on share performance (Daoping et al. 2010). Yang et al. (2016) examine whether financial constraints and financial distress can compel firms to report greater earnings around SEOs and they show that firms encumbered with financial constraints, high distress risk and which manipulate their earnings perform well initially before the SEO and later poorly after the issuance. Investors view these firms more favourably when they rely on their present earnings managed financial statements, however financial restatements after the SEO show the true picture of the firm.

On the same note, empirical evidence further suggests that firms that carry high debt distress risk are inclined to inflate earnings to benefit from substantial SEO proceeds. Das and Jena (2016) investigate EM around SEO firms and establish that both domestic and overseas firms in India engage in accrual-based EM as well as real EM during SEO. EM prevalence around the SEO issuance suggests a supposedly close relationship between EM and SEOs.

3.4.2 Earnings Benchmarks Incentive

A firm earnings benchmark is a standard against which the performance of a manager can be measured. Earnings benchmarks are set financial targets that managers are required to attain as part of their performance measures. Rewards and managerial compensation are commonly pegged on the manager's ability to meet pre-set earnings benchmarks. Managers are more inclined to engage in EM arising out of the desire to achieve the earnings benchmarks,

particularly in complicated economic cycles when performance is below par. Bornemann, Kick, Memmel and Pfingsten (2012) investigate whether Germans banks were using hidden reserves to beat earnings benchmarks. Banks can utilize these reserves as shields against unique inherent risks associated with the banking business. The authors establish that banks rely on these reserves to avoid; a negative net income, a drop in net income and a shortfall of income compared to their peers in the banking industry. The same reserves are used to smooth earnings over time. The quest to meet stringent targets and show favourable earnings among bank managers incentivizes them to engage in EM.

Managers are also under interminable pressure to meet and surpass earnings benchmarks. Questions, therefore, do arise on whether managers are compelled to engage in EM to meet their respective earnings benchmarks. Sun and Rath (2012) investigate earnings benchmark beating behaviour by managers and the circumstances under which managers inflate firm earnings to beat earnings benchmarks. Two examples of benchmarks namely, positive earnings and positive earnings change are found to be correlated with earnings manipulation. It is established that when the underlying firms' earnings are negative, firms are more likely to use discretionary accruals to inflate earnings to beat set earnings benchmarks. In the same vein, Gunny (2010) examines the relationship between EM using real activities manipulation and future performance while relying on evidence from earnings benchmarks. Real EM is established to be positively correlated with future performance in firms with a set earning benchmark.

An earning benchmark can further be subdivided into the following three drivers: earnings level, earnings change, and analysts' expectations. Each of these drivers has an effect on earnings benchmark and by extension EM. Lento and Yeung (2017) examine the link between earnings benchmarks on EM and future share performance in Chinese listed companies. Results suggest that Chinese listed firms have the highest level of income increasing discretionary accruals around the earnings level benchmark, followed closely by the earnings change benchmark. Moreover, these corporates with relatively high levels of EM and low earnings exhibit relatively

weak future share performance. In the same vein, Holland and Ramsay (2003) argue that Australian companies managed earnings to report positive profits as well as sustain the prior year's profit performance. Their findings confirm that Australian firms actively manage earnings to foster consistency in reporting positive profits and sustain the previous period's favourable financial performance.

3.4.3 Income Smoothing Incentive

Income smoothing refers to the technique managers rely on to even out fluctuations in a firm's earnings. Income smoothing can also be termed as the purposeful intervention into the operating and reporting processes of the firm to lower the variance of reported earnings over a while (Demerjian, Donovan, Dame and Lewis-western, 2016).

Income smoothing is motivated by potential investors' affinity to invest in firms with stable and consistent earnings over time. Additionally, a manager's compensation may be pegged to the level of earnings which gives them incentives to ensure consistency of earnings. The procedure of smoothing income takes advantage of the leeway allowed in the financial reporting standards, which consequently gives rise to EM. Aptly, Aflatooni and Nikbakht (2009) designate income smoothing as an earning management strategy that continuously survives the test of time. The authors posit that income smoothing presents an arguably efficient channel for managers to show private information to outsiders about the firms' status. Moreover, smoothing is an exercise undertaken by managers to influence investors and other financial statement users for personal gain. Chiefly among them is attractive executive compensation.

Income smoothing is deemed to have an impact on the informativeness of share prices. It is argued that when managers engage in income smoothing, they influence the firm's share price by providing some assurance to investors that future firm earnings will be stable. Salehi and Manesh (2011) investigate whether income smoothing does indeed improve the informativeness

of share price about a firm's future earnings and cash flows. In the study, income smoothing is interpreted as the management of accruals to reduce time-series variations in income. Findings suggest that income smoothing enhances the information content of the effect of the share price on future earnings, thus improving the ability of investors to make informed decisions about the allocation of capital resources.

On the same note, Cheng and Li (2014) examine the impact of income smoothing on earnings informativeness. The future earnings response coefficient is used as the proxy for earnings informativeness. Subsequently, the authors compare the results between Chinese and US markets and find that income smoothing improves the coefficient of future earnings response. Earnings response is the relationship between earnings announcement and equity returns. For instance, Tudor (2002) attempts to establish whether institutional characteristics and accounting standards have a more notable impact on either income smoothing or earnings informativeness. Findings show that income smoothing improves earning informativeness during the pre-IFRS period. Moreover, firms' smooth income in the absence of strong accounting controls to guard against the practice. Also, additional evidence shows that the effect of income smoothing can be extracted from smoothed quarterly reports (Das, Shroff, and Zhang, 2009).

3.4.4 Equity Incentives to EM

Equity incentives are compensatory tools employed by firm owners to offer a chance for managers to own equity as a form of motivation and compensation and as well as mitigating against the agency problem. Arguably, equity incentives in the form of share-based compensation and share ownership are a contributor to EM because in such situations managers have incentives to carry out EM to inflate the value of these shares for sale at a future date. For example, Cheng et al., (2011) examine the relationship between equity incentives and EM in the highly regulated banking industry. They establish that bank managers with high equity incentives are more likely

to manage earnings, especially when capital ratios are closer to the minimums required by regulators. Notably, the findings in Cheng et al. (2011) indicate that in the banking industry, potential regulatory intervention induces rather than mitigates EM arising from equity incentives. Cheng and Warfield (2005) dissect the link between managerial equity incentives and EM for firms in the US. The equity incentives are those arising from share-based compensation and share ownership. They argue that managers with high equity incentives are more likely to sell their shares in the future, which motivates them to engage in EM to increase the potential value of shares sold. Managers with high equity incentives are more likely to report earnings that meet or just beat analysts' forecasts. Consequently, the findings demonstrate that equity incentives lead to incentives for earning management.

The agency theory postulates that equity incentives come in handy when aligning shareholders' interests to that of managers. The downside to this theory is that these equity incentives may compel managers to boost short-term share prices by engaging in earning manipulation. Duellman, Ahmed and Abdel-Meguid (2013) undertake an empirical analysis of the effects of monitoring intensity on the relationship between equity incentives and EM. Effects of equity incentives on management actions are broken down into interest alignment effect and opportunistic financial reporting effect. The evidence suggests that management goals tend to dovetail with those of shareholders when monitoring intensity increases and vice versa. For firms with low monitoring intensity, the opportunistic financial reporting effect of equity incentives dominates the incentive alignment effect. This implies that for firms with low monitoring intensity, managers are more inclined to engage in opportunistic financial reporting, which is another byword for EM.

3.4.5 Borrowing Cost Effects as an EM Incentive

A firm that has borrowed funds to satisfy its financing need will have, without a doubt, committed itself to a debt covenant. Debt covenants are a restriction that lenders put on lending agreements to limit borrower actions in the interest of ensuring that the borrowers can repay the debts once and when they fall due. When firms' activities threaten to violate the provisions of the debt covenant, managers may weigh in by engaging in EM to ensure the financial reports are per credit holders' stipulated guidelines. For more emphasis, Rani, Hussain and Chand (2013) identify borrowing cost effects as one of the critical managerial incentives for EM among listed firms in Fiji. The authors posit that a firm's proximity to violating its debt covenant provides its management with a compelling incentive to engage in EM. Firms that are close to breaching their prevailing debt covenant are likely to engage in EM to ensure they remain within the debt covenant confines.

Debt covenants may result in earning management as managers try either to reduce the restrictiveness of accounting based constraints in debt agreements or to avoid the cost of covenant violations. For instance, Khalil and Simon (2014) examine whether contracting incentives such as debt covenants and income smoothing could explain the various accounting choices in Egypt. The authors establish that managers are likely to smooth earnings by managing the accruals components in their attempts to satisfy stringent debt covenants stipulations. Similarly, Demerjian et al. (2016) investigate whether income smoothing affects the usefulness of earnings used for contracting through the monitoring role of earnings-based debt covenants. The authors establish that private debt contracts for borrowers with more significant income smoothing are more likely to contain earning based covenants. Therefore, the evidence, alludes to the argument that debt contracts pegged on earnings may act as a catalyst towards earning management.

3.4.6 Management Buy-Outs as an Incentive to EM

Management buyouts (MBO) involve the firm's management buying out the company they control from its current shareholders. Before management buyouts, managers have an incentive to deflate the reported earning numbers through accounting manipulation in the hopes of lowering the share price. If managers succeed in their EM venture, the reward is buying the firm cheaply. Arguably, EM and significantly more, income decreasing EM, is a precursor to management-driven buyouts. Case on point, Rani et al. (2013) argue that instances of downwards EM may precede management buyouts. In such situations, management has to strike a delicate balance between their fiduciary duties of acting in the best interest of the firm and on the other hand, as buyers who will bid for the lowest price possible to acquire the firm they currently manage. Mao and Renneboog (2015) seek to address the question of whether managers intending to purchase the companies they manage utilizing a leveraged buyout transaction manipulate earnings to buy their firm more cheaply. Negative EM or earnings reducing earning management to be more precise does take place in the periods preceding the management buyouts. Moreover, positive or increasing earning management is present in non-management buyout firms.

The evidence also indicates that for periods preceding management buyouts, target firms usually exhibit abnormally high discretionary expenses. Discretionary expenses constitute a widely used proxy for accruals earning management. Abnormally high discretionary expenses are attributable to managers' inclination to engage in EM through downplaying the firms' earnings in the period preceding the buyout. Management downplays the firm's earnings to lower the value of the firm as they prime it for the buyout. Li, Qian and Zhu (2013) investigate whether managers engage in earning reducing activities before management buyouts (MBOs) as well as the impact on performance on the MBO firms. The authors observe that managers have incentives to undertake activities that temporarily deflate earnings before launching MBOs. The evidence suggests that MBO firms are likely to undertake to earn reducing activities such as relying on abnormally higher discretionary expenses, recording losses from assets sales, and reduced discretionary

accruals before MBOs. Earning reducing activities, therefore, occurs in an environment where outside investors and the market do not fully comprehend incentives to engage in EM. Furthermore, severe information asymmetry, weak internal controls and insider holdings all exacerbate EM practices.

3.5 Disincentives towards EM

EM yields a motley of results. Generally, firm managers manage earnings considering incentives discussed in section 3.4. Furthermore, several firms, which manage their earnings usually, do so to polish their credibility and increase their share price on one hand. On the other hand, EM practices are aimed at reducing their political and social costs. At the managerial level, executives engage in EM to increase the value of their share options and enhance their standing in the marketplace (Wu, Lin, and Fang 2012).

In some cases, investors can potentially infer the probability of EM, which will adjust their value perception of the firm downwards and consequently lower its value. For instance, Bardos et al. (2011) investigate whether investors possess the ability to discern materially misstated earnings and whether if they can anticipate future earnings restatements. The authors establish that investors do anticipate future subsequent downward earnings restatements. Furthermore, investors start marking share prices down several months before an earning restatement announcement. By and large, some of the detrimental effects of EM include; increased litigation possibilities, a decrease in share prices, heightened regulatory scrutiny and loss of reputation (Wu et al., 2012). Some of the restraining techniques against earning management are highlighted in the following subsection.

3.5.1 Monitoring Role and Board Governance as a Disincentive

The empirical literature o EM indicates that effective controls provided by board monitoring work in mitigating against earning management. For instance, Marra et al. (2011) seek to address

the question of whether the board of directors is more effective in constraining earning managements after the firm adoption of IFRS. More specifically, they explore whether board independence and the existence of an audit committee have an impact on EM. Empirical results demonstrate that board independence and audit committees do play an influential role in EM reduction. Ghosh, Marra and Moon (2010) allude to the widely held belief that EM in the 1990s was attributed to inadequate monitoring by board and audit committees who are considered to be the ultimate guardians of financial reporting standards. Likewise, Suffian et al. (2015) investigate whether monitoring mechanisms affect the manipulation of earnings in Malaysian Sharia-compliant companies. They find that monitoring mechanisms such as transparency and disclosure requirements have a negative influence on EM. Monitoring is also negatively related to EM.

3.5.2 Audit Quality as a Disincentive

Auditors act as gatekeepers for shareholders' interests when they examine the financial statements and give their opinion on the veracity of the reports. The extant literature has documented the role audit quality plays in mitigating the effect of EM. For example, Zhou and Elder (2004) investigate the relationship between audit quality and EM in companies undertaking SEOs in the US. They observe that when reputable auditors are involved, lower EM is experienced in the years preceding, during and after the SEO. Audit quality acts as a deterrent against EM by SEOs.

Due to the effectiveness of good audit quality in mitigating against EM, managers are compelled to engage in real EM, which is more challenging to pinpoint compared to accruals management. For firms subjected to high audit quality, EM will shift from the more prevalent accruals management to real management which is more challenging to identify. As a case on point, Chi, Lisic and Pevzner (2011) investigate whether enhanced audit quality is associated with greater real EM. More specifically, the authors examine whether firms resort to real EM when high-

quality auditors constrain their ability to manage discretionary accruals. The evidence shows that the inadvertent consequence of higher quality auditors constraining accrual earning management led to firms resorting to the more expensive and more challenging to detect practice of real EM. For instance, Xie et al. (2003) examine the role of a board of directors, audit committee and executive committee in inhibiting EM. The authors establish that audit committee members with a financial background are associated with a lower level of discretionary accruals, a common proxy for EM. Moreover, frequent board committees' meetings and financial sophistication all worked towards constraining EM. In a related paper, Bukit et al. (2009) argue that independent audit committees provide effective monitoring over earning management practices. The authors establish that independent audit committees assist companies with high surplus free cash flow to decimate income increasing EM practices.

3.5.3 Firm Ownership Structure as a Disincentive

Ordinarily, the ownership structure of a firm has an impact on the extent of EM. Ownership structures that incorporate managerial insider ownership, institutional ownership, block holder and foreign ownership are associated with lower incidences of EM. For instance, Saleem and Alzoubi (2016) examine the association between firm ownership and EM. The results show that insider managerial ownership works towards curtailing EM. On the one hand, ownership incentives given to managers such as the popular executive share options mitigate against agency costs which in turn restrains EM. Alternatively, the tightly controlled family firms are more likely to have their earnings managed. Ching, Firth, and Rui (2006) test this assertion for a sample of firms in Hong Kong and they find evidence that family-owned firms are more likely to use positive discretionary accruals before making an SEO. However, the presence of independent directors and block holders in the firm all work in constraining against EM.

Indeed, a higher equity stake by firm insiders such as managers does reduce EM while enhancing the information content of earnings. Information content refers to the level at which the firms'

earnings depict a true and fair picture of its affairs. The evidence on the relationship between equity stakes and earning management suggest that it is beneficial for the firm when management has a stake in it as opposed to ownership being concentrated into a few hands. Yang et al. (2008) examine the relationship between managerial structure and EM in Taiwanese firms. They recommend that equity stakes owned by top officers of a firm should be encouraged to reduce agency costs and improve earnings quality. In a related study, Mazumder (2016) relies on Japanese insights when exploring the impact of ownership structure on earnings predictability. The author reports that higher domestic institutional financial ownership is associated with earnings predictability in Japanese listed firms. Furthermore, institutional shareholders, especially financial institutions, ensure effective monitoring over corporate reporting practices which leads to better earnings quality. In Africa, Obigbemi, Omolehinwa and Oluku (2017) examine the relationship between ownership structure and EM practices in Nigerian companies. The authors find out that ownership structure has a significant relationship with EM practices in Nigeria. On the one hand, a positive and significant relationship subsists between management ownership and family ownership with EM. Conversely, the relationship between block ownership and EM is negative and significant. Therefore, it is arguable, that the type of ownership structure a firm has can serve as a substantial disincentive to EM.

3.6 Empirical Literature of EM in SEOs

Relying on prior research, the prevalence of EM practices around significant firms' events is without a doubt. This can be attributed to high levels of information asymmetry between investors and issuers at the time of the offering. Managers' inclination to engage in EM stems from the attention the financial reports received from prospective investors, analysts, and other interested parties. Furthermore, the management would prefer to capitalize on the benefits of the share issuance to rope in proceeds from it. New listings and equity offerings are prime EM events.

Other main events in which there is a high likelihood of EM occurring include earnings benchmarks as well as mergers and share acquisitions (Ronen and Yaari 2008).

3.6.1 Introduction

Seasoned equity offerings (SEO) are the sales of shares after an IPO. SEOs, more descriptively referred to as secondary equity offerings, are the issue of shares by a firm that has already completed an IPO. A firm will opt for an SEO as an external source of financing due to inadequate internal financing sufficient to meet its long-term needs which require significant capital outlay (Abraham and Harrington, 2011).

3.6.2 EM and SEO Under-pricing

Prior research unveils evidence of EM practices around SEO. Some studies attempt to explain the low share price characterized by SEOs after the post offering period while others investigate the managers' motives for engaging in EM around the SEO. Yoon and Miller (2002) investigate EM in Korean firms in the year before a planned issue of SEOs. They find that Korean firms contemplating SEOs in the following year do manage earnings, mainly when their relative financial performance has been lacking. Secondly, firms are more likely to manage earnings if their operating performances are poor or if the offer sizes are relatively large. It can, therefore, be inferred that SEOs opportunistically alter their discretionary accruals, which leads to EM.

3.6.3 EM and SEO Share Price Performance

Arguably, the low share price performance of firms that raise capital through SEOs is an essential anomaly of the financial markets. This has cast the spotlight on the role of EM in influencing the performance of SEOs. The presence of abnormally large discretionary accruals around SEOs can be used to infer that these firms opportunistically manage their earnings upwards to boost their share prices temporarily. The empirical literature documents that EM negatively influences the

performance of SEOs. For instance, Rangan (1998) examines whether EM around the time of the offering can explain a portion of the post issue poor performance of SEOs. More specifically, the author investigates whether investors' inability to unravel EM around the time of the offering can explain the subsequent poor share price performance. The evidence suggests that discretionary accounting accruals in the period around the offering predicts a portion of the subsequent poor earnings and share price performance. The author establishes that a portion of the discretionary accruals can be used to infer deliberate EM, thus, SEOs manipulate their share price by managing earnings. The question of whether managers manipulate earnings around SEO continues to be a subject for interrogation. For instance, Daoping et al. (2010) examine whether Japanese private placement issuers manipulate their earnings around the time of issuance as well as the relationship between EM and the post-issue share underperformance. The evidence suggests that managers of Japanese private placement firms tend to engage in income increasing EM around the time of the SEO issuance. Additionally, EM serves as a likely source of investor over-optimism at the time of the private placement. From the study, it can be inferred that private placements provide a direct incentive to managers to manipulate earnings. The managers' goal for engaging in EM is to portray a favourable view of the firm's financial prospects to attract new investors and obtain more favourable terms for selling new shares. Concisely, the results indicate that managers tend to manage earnings by adjusting earnings upwards around the period of SEO.

The relationship between EM, SEO, and the consequent effect on offer pricing for SEOs has also been a subject of empirical analysis. Since prior literature indicates that EM activities by managers are induced by the need to attract a favourable price on the SEO offers, there is a supposed link between, EM and the SEO offer price. SEOs are likely to employ high discretionary accruals to bid up their SEO prices aggressively. Kim and Park (2005) examine the relationship between EM and the pricing of SEO share offers. They also seek to determine whether there is a relationship between pre-issue EM and the pricing of the SEO. The evidence

suggests that SEO firms make opportunistic accounting decisions that artificially inflate the price of the new shares prices. A negative relationship between discretionary accruals and SEO under-pricing is expected if the offer day closing price does not increase as much as the offer price. Overall, it can be inferred that SEO firms do engage in EM to inflate the offer price up to receive more proceeds from the offering.

3.6.4 Accruals versus Real Earning Management in SEOs

EM can further be broken down into accruals based and real EM activities. The effect of both measures on firm earnings is a subject of study. Prior research has documented that SEOs are associated with EM and subsequent declines in operating performance. Most studies have focused exclusively on accrual manipulations with the decline in post SEO performance being attributed to accruals reversals after the issuance has taken place. However, in addition to accrual manipulation, firms can also manage earnings by altering real activities. On the one hand, accruals based EM involves alteration of non-cash items, therefore, does not affect the cash flow. On the other hand, real activities manipulations the recognition of revenue items in firm earnings. For example, Cohen and Zarowin (2010) segregate EM into accrual and real manipulation and subsequently examined the effects of both EM activities around the SEO. Real activities manipulation in the study is interpreted as those actions taken by managers that deviate from normal business practices. They find firstly that SEOs engage in real activities manipulation. Secondly, they observe that post SEO operating underperformance is driven not just by accruals reversals, but also reflects the real consequences of operational decisions such as inflated production costs and discretionary expenses are used to manage earnings. Lastly, the decline in post SEO performance due to real activities management is more severe than can be attributed to accruals management. Overall, the findings bring forth the importance of real EM activities in influencing a specific corporate finance event such as an SEO.

Other studies attempt to shed light on EM momentum. It explains the notion that firms that have previously engaged in prior earnings manipulation will be more likely to continue engaging in EM in subsequent SEO. For instance, Chang and Lin (2018) investigate the relationship between current and past period earnings manipulations for multiple SEO firms in Taiwan. The evidence suggests a few significant findings. Firstly, SEOs discretionary accounting accruals increase with the extent of cumulative prior discretionary accruals accompanying prior equity offers. This is consistent with the notion that prior earnings manipulators continually inflate the earnings around the SEO. Secondly, SEOs that have repeatedly beaten earning targets through EM continue to have a stronger incentive to keep doing so since the market rewards consistency over time rather than once-off good performances. Lastly, prior earnings manipulators appear to engage in real EM activities as well as accrued EM techniques to alter reported earnings. Concisely, findings, therefore, support the presupposition that managers have incentives to manipulate earnings accompanying financing activities such as SEOs.

CHAPTER FOUR
EMPIRICAL LITERATURE ON SEASONED EQUITY OFFERINGS AND FIRM PERFORMANCE

4.1 Introduction

Subsequently, a limited number of firms approach the equity markets for the first time through an IPO and cease any direct interactions with the capital markets after the IPO is concluded. However, for numerous other firms, the IPO is only the initial step among numerous future ones when interacting with potential investors. These public firms must approach the capital markets to satisfy their continuously emerging financing needs as the firm grows. The need for additional capital, which must be raised in subsequent offers after the IPO gives rise to seasoned equity offerings (SEOs).

In an SEO, a firm seeks to recruit a fresh crop of investors by offering additional shares to raise additional capital. Typically, SEOs prefer the highest share price the share offer can fetch, hence the reason why SEOs are inclined to engage in EM to achieve this desired goal. The primary motivations for issuing SEOs include; obtaining funds for financing new expenditures or capital intensive projects, funding debt repayments, financing takeovers and mergers as well as capitalizing on positive investor sentiments towards the firm in the equity markets (Geddes, 2003).

Observation of extant literature on SEOs studies suggests that many of the studies have been carried out in the context of the developed markets. However, there is an apparent paucity of research in emerging markets. Furthermore, most of the studies carried out have focused on share price reaction and short-term underperformance. There is a marked lack of studies on the impact of SEO on firm performance in the long term. This chapter delves more into the empirical literature surrounding SEO and the consequent effect on firm performance.

4.1.1 Goal of this Chapter

This chapter embarks on reviewing empirical literature on SEOs and their impact on a firm's financial performance. This empirical review consists of analyzing prior research done in the area SEO, examinations of crucial findings and identification of possible voids in research which this study attempts to fill.

4.1.2 Layout of this Chapter

The chapter is organized as follows: Section 4.1 provides a general introduction to SEO, 4.1.1 outlines the goals of the chapter, 4.1.2 breaks the layout of chapter 4.2 examines the nature of SEO 4.3 provide justifications why SEOs matter 4.4 investigates firm motives for issuing SEOs, 4.5 examines selected global literature on EM around SEOs 4.5.1 examines empirical literature evidence in selected developed markets, 4.5.2 investigates empirical evidence in selected emerging Markets 4.6 provides a summary for the chapter.

4.2 What is a Seasoned Equity Offering?

A firm's requirements for external financing seldom ends with an IPO. To take advantage of future profitable opportunities as it grows, a public firm may be compelled to return to the capital markets to acquire additional financing through subsequent share offers referred to as an SEO.

Seasoned equity offerings (SEOs) are described as the sales of additional shares after an IPO. Also, SEOs can be more descriptively referred to as secondary equity offerings. They involve the issue of shares by a firm that has already completed an IPO. The extant literature establishes that a firm will opt for an SEO as an external source of financing due to inadequate internal financing sufficient to meet its long term needs, especially for long term projects which require significant capital outlay (Abraham and Harrington, 2011).

SEOs are also described as offers that involve publicly listed firms returning to the capital markets[26] and offering new shares for sale. There are two types of SEO offers in existence; cash offers and the right offer. In a cash offer, the firm offers new shares to investors at large while in the right offer, the firm offers the new shares only to existing shareholders. In the US, most offers are cash offers in the form of SEO while in the UK, most offers are rights offers. The SEO issuing process mirrors that of an IPO. The difference between an IPO and an SEO can be pinned to the fact that the share price of the share exists for an SEO firm, therefore the share price-setting process which precedes an IPO is unnecessary as it has already been set by the market (Berk, DeMarzo and Harford, 2011).

In an SEO, a firm seeks to incorporate a new group of investors in addition to existing ones in the quest to raise additional capital. In some securities markets, SEOs are also referred to as rights offers. Usually, the right offers award existing shareholders the right to buy further shares in proportion to current shareholding. The onus is on the existing shareholder to decide whether to exercise or forego his rights. Commonly, this right is referred to as a pre-emption right (Ronen and Yaari, 2008).

[26] In several texts, the phrases "capital markets" and "equity markets" are used interchangeably. They refer to the market for funds concerned with raising capital for long term investments.

4.3 Do Seasoned Equity Offerings Matter?

From a capital structure perspective, a firm can choose to rely on its internal sources of funding if the funds are available. However, in growing firms, internal funds usually fall short, and they are seldom enough to support capital intensive projects which require a significant cash outlay. Some of the vital capital intensive projects undertaken by growth firms include new product development, expansion of facilities, as well as continuous research and development.

Sourcing funds from external financing, therefore, becomes a desirable option for these growing firms which may take the form of debt borrowing or issuance of ordinary shares through SEO. The choice by management to issue an SEO is dependent on a host of variables. The extant literature highlights these factors which include the availability of debt, current cash flow as well as investment opportunities (Abraham and Harrington, 2011).

SEOs influence the wealth of managers, especially in management-backed SEOs issues. If a manager holds or owns substantial shares of the firm, they are unlikely to issue an SEO unless it is necessary. Generally, this stems from the fact that current share prices generally decline upon the announcement of an SEO. Further, the impact on managers' wealth is evidenced by empirical research on SEOs which suggests that the decision to issue an SEO typically engenders a decline in the value of the firm.

Investors might infer that a firm is in financial doldrums if it decides to offer an SEO. In the eyes of some investors, the issuance of an SEO is a signal of financial difficulty. Negative investor sentiments precipitate the fall in share price since the same share is viewed as overpriced. Brazel and Webb (2006) examine the relationship between CEO compensation and the SEO issuing firm decision. The authors argue that managers who own sizeable proportions of equity will only issue shares if it is necessary. Usually, their reluctance to issue shares is premised on the notion that share prices take a nosedive after the announcement of the SEO in the short run as well as the

long run. Managers are therefore reluctant to issue SEOs unless they really must because the issuance negatively impacts their overall wealth.

Questions also abound on whether EM affects the mere alteration of the financial statement. Marquardt and Iedman (2004) investigate the effect of EM on the value relevance of accounting information as reflected in share prices. Their findings establish that when management sells shares either at a primary offering or at a secondary offering, the markets discounts earnings more. Discounting means that investors are likely to place a lower valuation on the SEO issue because of the probability that earnings have been managed to make that SEO issue more attractive.

An SEO also provides an attractive conduit for managers to engage in EM because it offers them a chance to participate in the offer by selling their shares. The managers' goal is to attract the best possible share price during the SEO, mainly when they are selling their shareholding. The managers stand to raise more finance if the offer price is high; therefore, earnings may be managed upwards to make them attractive to potential investors.

Prior research has previously documented evidence of income increasing EM before an SEO (See Rangan, 1998; Siew Hong Teoh, Welch, and Wong, 1998). For instance, Marquardt and Iedman (2004) posit that managers often participate in SEO by selling their shares, fuelling their incentive to manage earnings relative to other offering firms. Managers may use their discretion to influence a firm's financial reporting, thereby allowing them to manage earnings for their private benefit. The probability that EM will probably be prevalent in SEOs when managers are disposing of their privately-held shares makes the study of SEOs to acquire more significance.

It is worth examining SEO since they offer investors a pellucid view of EM incentives. Primarily, although this study dwells on the issue of new shares in SEOs, it is worth examining literature discussing issuance by existing shareholders such as managers. The real identity of the selling shareholders is not disclosed in the offering prospectus making it more challenging to identify

prior shareowners for purposes of assessing the firm's share price. Subsequently, management backed SEOs will probably be under-priced compared to those that are non-managers backed. This is done to overcome investors' scepticism that earnings may have been previously managed before the issue. To start with, Marquardt and Iedman (2004) dichotomize SEO issuers into management versus non-management backed, with the latter group of non-management backed SEO issuers serving as a control sample while comparing the reporting behaviour of the former. The empirical evidence documents that discretionary accruals for managers who sell their shares through a secondary offering are significantly positive in the year of offering. Therefore, it is inferred that SEOs issuing firms in which managers sell their held shares are more likely to be characterized by EM. Additionally, a significantly larger price drop in share is experienced when managers participate by selling their shares. This can be attributed to investors' ability to discern possible EM. The close relationship between EM and SEOs, therefore, merits further review.

The study of SEO is also crucial in explaining the financial markets anomaly where companies issuing SEO perform well before the issue, but this is closely followed by underperformance in the periods after the offering. SEOs enjoy good earnings performance before the offering but in contrast, the earnings fall sharply after the offering. Teoh et al. (1998) attribute these earnings anomalies to EM. The authors establish that before issuing an SEO, earnings are managed upwards by incorporating all possible accruals into income and accelerating recognition of income. This acceleration is quick to recognize earnings from future periods. However, after the SEO, earnings fall and become less than their stated potential had the income recognition acceleration not taken place. A sample of the extant literature alludes to the same. Gombola, Ho, and Liu (2003) investigate the earnings performance of companies around SEOs. The evidence emerging is that earnings decline after the SEO issuance. Furthermore, the market reaction to the SEO is negatively related to operating performance for the offering year and positively related to operating performance for years after the SEO. The question of whether it is worth investing

in SEO should be answered by a thorough examination of EM around SEO issuance and its subsequent impact on firm performance.

4.4 Firm Motives for Issuing and Engaging in SEOs

What motivates a firm issue to issue an SEO? The answer to this puzzle proves elusive and researchers remain divided in their explanation of subsequent underperformance of firms that issue SEOs. While conducting due diligence, an investor must surely question the firms' motives for issuing an SEO. For instance, Kim and Weisbach (2008) rightly point out that the relations between equity markets and firms' real decisions is an old and still extremely topical issue in finance. Although the traditional reasons for issuing SEO such as investment finance, wealth transfer from new to existing shareholders and increasing liquidity still hold, other studies posit that the reasons why firms issue SEOs is to rebalance their capital structure and exploit share mispricing. Share mispricing can be attributed to information asymmetry where potential investors attach a high premium to the value of a firm's share contrary to its true value. Some studies have lent credible support to the mispricing motive (see Kim and Weisbach, 2008; Loughran and Ritter, 1997; Shu and Chiang, 2014; Huang et al., 2016). Broadly, these subsections seek to shed light on a motley of reasons as to why firms issue SEOs.

4.4.1 Capital Raising Motive

Primarily, a firm issues an SEO to meet its financing needs. Usually, its growth and profits are a consequence of adequate investment which requires prior financing. Generally, firms opt to issue equity through SEOs to meet long term financing needs. The capital raising motive constitutes a primary reason as to why firms issue SEOs.

Prior research has attempted to explain if firms issue SEO to finance growth opportunities or to take advantage of mispriced shares. Wadhwa, Nagi Reddy, Goyal and Mohamed (2016) examine whether firms that issue equity through SEOs exploit mispricing because of investor enthusiasm

or to finance growth opportunities. Market to book value decomposition is used to unearth overvalued shares. The evidence suggests that firms take advantage of mispriced shares. However, the primary goal of issuing SEO is to finance their investment opportunities in the form of real assets, inventory, and capital expenses. On the same note, raising capital remains a crucial driver for issuing SEOs. Kim and Weisbach (2008) establish a capital investment motive to be one of the key reasons why firms issue SEO.

Firms issue SEOs to raise long term capital to finance capital intensive ventures such as research and development. For example, Bayless and Jay (2013) seek to establish the reasons that motivate firms to issue SEO by examining how the issue proceeds are utilized. The evidence alludes to the use of SEO proceeds in firms to finance research and development (R&D). The authors also establish a strong link between SEO and subsequent investment in fixed assets. Walker and Yost (2008) examine the relationship between what firms say, what they do and how the market reacts with regards to the usage of SEO proceeds. Results indicate that regardless of the firms' prior stated use of funds, firms generally increase their capital expenditures as well as invest more in (R&D) following an SEO. In summary, there is supporting evidence showing that capital raising motive is one of the primary reasons for issuing SEOs.

Studies that examine the relationship between the use of SEO proceeds and the long term performance of SEOs are a good source in documenting how these firms utilize the funds raised from the SEO. Jeanneret (2005) investigate the use of SEO proceeds and the long term performance of French SEO firms. The evidence suggests that firms raise equity for capital structure motives such as strengthening their equity financing as well as for specific investment projects. Also, Autore, Bray, and Peterson (2009) investigate the intended use of SEO proceeds and the long-run performance of SEO issuers. Among the stated and intended uses of proceeds include investment, recapitalization, and general corporate purposes. Findings suggest that firms that primarily channel their raised funds into investments usually signal profitable opportunities

to potential investors. Raising funds for investment can, therefore, be deduced to be one of the primary reasons why firms issue SEO. Overall, the capital raising motive can be regarded as one of the main reasons why firms issue SEO.

4.4.2 Market Timing Motive

The specific instance at which a firm decides to issue its SEO affects whether the offer will be successful. If the SEO issue occurs during a period of strong investor confidence, the issue proceeds will be more favourable compared to SEO issues during economic downturns. Firms that conduct SEOs generally have a high share valuation which continues to increase before the SEO issuance (Rahman and Mohd Saleh, 2008; Shan, 2015). Also, prior research unveils a strong relationship between market timing opportunities and the probability of a firm conducting its SEO. DeAngelo, DeAngelo and Stulz (2010) assess the explanatory power of market timing in influencing SEO issuance. The authors find out that that, a firm's market timing opportunities as well as its corporate lifecycle exert economically and statistically significant influences on the probability that the firm conducts an SEO. Apart from raising capital for investment, one of the other main reasons why firms issue SEO is to take advantage of the market through timing when there is high prevailing investor optimism. A growing body of literature has previously examined the timing factor in SEO issuance (Larrain and Urzúa I., 2013; Qian, 2013; Shu and Chiang, 2014).

For instance, Huang et al. (2016) examine the market timing of SEO with a long regulative process in China and establish that a long regulative process exists between the initial announcement and execution of SEO in China where the SEOs usually undergo a long regulative process of around 316 days before they are approved. This is in sharp contrast to SEO in the US and other developed markets where the average duration between SEO announcement and actual issuance is 27 days. The relatively long period makes the price to vary from a significant reduction upon announcement of the issue to a significant, sustained run-up in the price of the

share when the regulator finally approves the issue. As a result, the share price at the point of SEO issuance is not significantly different from the price at the announcement of the SEO. Besides, the finding suggests that Chinese regulative screening for market stabilization for SEOs market timing. In a nutshell, Chinese managers regularly time the market before they issue SEOs.

The market timing theory postulates that managers time their SEO issues to coincide with the upward moving market to maximize the issue proceeds. Opportunistically, the management's tendency to manipulate earnings upwards tends to coincide with the period just before an SEO is made. For example, Kim and Weisbach (2008) investigate the motivation for public equity offers from an international perspective. Some of the motivations for engaging in SEO examined in the study were investment financing and market timing explanations. Findings also suggest that firms are more likely to issue secondary shares in SEO which are usually sold by insiders, when the market to book value is high, enabling insiders to benefit personally from potential share overvaluation.

On the same market timing note, Cohen, Papadaki and Siougle (2007) seek to establish evidence of timing among SEO during hot markets. A hot market is one that appeals to many investors and there is a greater demand or appetite for new equity offers. Evidence suggests that market trends before the SEO issuance proved to be the only significant variable in explaining post SEO returns. The overall findings in the study are in line with the market timing theory, which claims that managers just time their equity issues in an upward moving market to increase the offering proceeds. In support of this assertion, Autore, Bray and Peterson (2009) examine motivations for SEO. The authors posit that managers avoid ownership dilution by timing their SEO to coincide with periods when investors temporarily their firm share. Deng, Hrnjic and Ong (2012) examine investor sentiment around SEO. Findings show that investor sentiment is positively related to pre SEO overpricing and plays an important role in managers' equity issuance decisions. All these results prove to be consistent with market timing for equity offerings. The evidence discussed,

therefore, supports the notion that, several firms issue SEO based on market timing considerations to maximize their proceeds from the SEO offer.

4.4.3 Cash Reserve Motive

Cash is the lifeblood of the firm; it enables it to meet its obligations as and when they fall due. Prior research points out that firms are increasingly issuing shares as a precautionary motive and to raise cash reserves (see Hugonnier, Malamud and Morellec, 2015; Warusawitharana and Whited, 2016). For example, McLean (2011) investigates the role of cash savings in share issuance. The author argues that firms are increasingly issuing shares for cash savings. In the study, the results suggest that during the 1970s, $1USD of share issuance resulted in USD 0.23 of cash savings and this had improved to USD 1 of issuance yielding USD 0.60 of cash savings in the decade between the year 2000 and 2010. The increased reliance on issuance proceeds for cash reserves is attributed to precautionary motives. The evidence also suggests that share issuance and cash savings are inversely related to issuance costs. Therefore, firms tend to issue and save when costs are low to avoid issuing when costs are high.

In modern-day working capital management, firms are compelled to maintain adequate cash reserves to cope with revenue fluctuations. The propensity to save proceeds from share issuance as cash has increased significantly while also evolving. Examination of prior research shows that firms plan their cash policies while considering the dynamics in the supply of capital. Also, firms make large equity issues when share prices are high with the express goal of building precautionary cash savings. For instance, McLean and Zhao (2018) investigate the relationship between cash savings and bullish market runs when share prices are on average high. When external financing is more accessible, firms are motivated to issue equity for purposes of building precautionary cash reserves on the one hand. In contrast, if external financing is costlier, firms shy away from building cash reserves with the proceeds of the SEO issue. DeAngelo et al. (2010) infer that a near term cash need is a primary motive for SEO issuance with market timing

opportunities being an ancillary reason for undertaking the SEO. A common theme emerging from these papers is that SEO issuance has a first-order impact on cash policy.

4.5 EM of SEOs: An Empirical Review

SEOs take place when existing publicly traded companies embark on raising additional capital by offering additional shares or debt instruments to the public. Corporate finance scholars have long been interested in the reasons why firms issue SEO as well as establishing the motives behind EM practices, which typically precede the SEO issuance. Unlike in an IPO which generates investor excitement and more in-depth regulatory scrutiny, firms issuing SEOs have already undergone due diligence when issuing IPOs hence they are unlikely to be subjected to similar rigorous scrutiny when issuing SEOs. This presents an opportunity for managers to engage in EM. Moreover, unlike an IPO where the share price is determined by expectations of future firms' prospects as well as valuation by comparison with similar companies, share prices are more accurately valued in the market during the SEO, because the firms' shares have been trading for a more extended period. Additional evidence still suggests that managers are more likely to engage in EM in an SEO compared to in an IPOs. This can be attributed to the management's need to generate enough enthusiasm around the SEO to attract more funds when a share is sold at a high valuation. To further reinforce the argument that EM activities precede SEOs issuance, DeAngelo et al. (2010) suggest that firms conducting SEOs have high share valuations that increase noticeably before the SEO.

4.5.1 Empirical Literature Review in the Developed Markets

The developed markets in the western world pioneered the issue of SEOs while those in emerging markets are closely following suit. Prior research suggests that SEOs are associated with EM and post-issue decline in firm financial performance (see, Rangan, 1998; Shivakumar, 2000; Siew Hong Teoh et al., 1998). A majority of these studies have examined the relationship between

discretionary accruals and SEO, with a few studies extending the research to relationships between real activities and SEO (Cohen and Zarowin, 2010).

Also, studies also suggest that SEOs are particularly susceptible to EM. However, researchers have, been more acutely concerned with EM around SEO. Studies by Rangan (1998), Loughran and Ritter (1997) and Teoh et al. (1998) are among the pioneer studies on EM in SEOs as well as the consequences on firm performance as a result of the EM activities. Loughran and Ritter (1997) examine the operating performance of firms conducting SEO. The study is a build-up on the literature on SEOs performance. Several findings emerge from this finding. Firstly, firms conducting SEO report inordinately low share returns during the five years after the SEO issuance following a sharp upward run in performance in the year before the SEO. Secondly, the operating performance of issuing firms shows substantial improvement before the offering, but then it deteriorates after the offer. Hypothetically, the decline in operating performance is attributed to managed earnings before the offering. Lastly, the authors observe that some firms take advantage of the window of opportunity presented by issuing SEOs when their share prices are high.

The low share performance of firms that raise capital through SEOs stands out as one of the unexplainable anomalies in the modern financial markets; therefore, justifying the research attention the area receives. Earlier research indicates that EM around the time of the offering predicts both earning changes and market-adjusted share returns in the following year after the SEO. For example, Rangan (1998) examines the relationship between EM and the performance of SEO in the US. More specifically, the author investigates whether EM around the time of the offering can shed light on a portion of the poor performance of SEOs. Evidence shows that discretionary accounting accruals in the period surrounding the SEO issuance predict a portion of the subsequent low earnings as well as below par share price performance. Moreover, discretionary accruals during the year around the offering is negatively correlated with earning changes in the following year. Concisely, the issuing firms can manipulate their share price by managing earnings.

Further evidence divulges that SEO firms have incentives to manage earnings in the year preceding the planned SEO issue, primarily when operating performance before the SEO issuance has been relatively low. For instance, Yoon and Miller (2002) examine whether SEO firms manage their earnings in the year before a planned issue of SEO in South Korea. In the study, earnings are reported as being managed through increased reported earnings. Considerably, they establish that SEO firms employ income increasing strategies during the period of SEO issuance. Firms are more likely to manage earnings if their operating performances are poor and share offer sizes are relatively large. However, the authors do not find any significant differences between SEOs and non-SEOs operating performance. In conclusion, SEOs, in general, do employ EM practices. Arguably, a gap still exists since the authors do not analyze share performance after the SEO issuance.

The pervasiveness of EM around SEOs has incentivized research on other related investment channels such as real estate investment trusts (REITs) in the developed markets. REITs differ from ordinary profit-oriented firms because they are required to pay out a high percentage of their taxable income to maintain their tax-exempt status in many jurisdictions. The requirement deprives REITs of internal funds for investment; hence, REITs must rely heavily on external financing sources such as SEO to fund their planned investments and expansions. To support this assertion, Zhu, Ong and Yeo (2010) investigate whether US equity REITs manipulate their financial results around SEOs. Findings show substantial evidence of FFO manipulation around SEOs. Moreover, REITs issuing SEO tend to be more aggressive in manipulating FFO. Among the factors, which influenced the manipulation of REITs financial results to include; diminished ability to generate cash flow, high advantage, volatile cash flow, frequent SEO and slack corporate governance. Xiao (2011) reports similar findings in Australian REITs.

Income increasing manipulation or EM is more prevalent in SEOs issuing firms than non-SEOs issuing firms. Slowly, EM in SEOs issuing firms is evolving from manipulation of discretionary

accruals to real activity manipulation in light of emerging legislation, such as the Sarbanes Oxley Act, which seeks to curtail it (Cohen et al., 2008). Real activity manipulation is on average harder to detect compared to manipulation of discretionary accruals. Since EM is largely considered detrimental to potential investors who rely on the financial reports to make decisions, various regulations have been enacted to curb it. Questions still abound on whether the regulations are sufficient to do so.

Other studies have attempted to address the distinction between real and accrual EM and their consequences. For instance, Ibrahim, Xu and Rogers (2011) examine real and accrual-based EM and their legal consequences while relying on evidence gathered from SEOs in the US. Firstly, the authors compare SEOs to a matched sample of non-SEOs to document income increasing manipulation. Secondly, SEOs, which attract lawsuits, are identified. Sued and non-sued SEOs are compared to determine whether using a specific method of manipulation is more likely to be detected and linked with the lawsuits. The evidence suggests the presence of income increasing accrual and real manipulation for SEOs in the year before the offering before the enactment of the Sarbanes Oxley Act. However, there is a notable and gradual shift towards real account manipulation after the enactment of the Act. Litigation patterns also show that those SEO firms with income increasing accruals tend to attract more lawsuits. In summary, SEOs, which engage in income increasing EM, are more likely to be sued when they engage in accrual manipulation compared to real activity manipulation. The latter form of manipulation is more challenging to unearth and much less understood compared to accruals manipulation.

Preceding research suggests that a negative relationship between EM around SEOs and subsequent share performance of the SEOs with the evidence showing that EM is also regarded as a causal factor for the issuing firm's share price (see Huang, Ho, Lin and Yen 2014; Lyanndres et al., 2005; Teoh et al., 1998). These findings are attributable to the tendency of SEOs to inflate their earnings to boost their share prices. For example, Chen and Gu (2008) examine whether EM around SEOs leads to share price run-ups in the US. The evidence suggests that EM is

significantly and positively related to prior abnormal returns before the SEO. However, EM is not significantly related to concurrent abnormal returns after the SEO issuance. Findings, therefore, suggest that EM does not necessarily cause a stock price run-up in SEOs; rather, it is a likely consequence of the share overvaluation before the SEO offering. In summary, the authors posit that the main driver for the underperformance of SEO is overvaluation rather than EM. However, it is arguable that EM is usually the precursor to overvaluation in the first place.

Other studies have attempted to answer whether firm managers deliberately mislead investors by overstating earnings before SEO in light of compelling evidence that EM usually precedes SEO activities. Shivakumar (2000) examines EM around US SEOs. More specifically, the author analyses whether firms overstate earnings before SEOs and if investors can recognize and undo the effects of such EM during share offerings. Abnormal accruals in the quarters around an SEO announcement are used as a measure of managerial discretion and EM in reported earnings figures. Abnormal accruals are defined as the difference between actual and expected accruals with the latter estimated using the Jones model (Jones, 1991). The findings imply that net income and accruals are abnormally high around SEO and abnormal accruals preceding SEO leads to a decline in net income. However, investors can discern EM in SEOs and they accordingly reduce their price response to the share offers.

Another study has been carried out which seeks to shed light on whether managers attempt to mislead rating agencies and the bond market by engaging in EM while issuing seasoned bond offerings (SBOs). For instance, Caton et al. (2011) investigate EM around SBOs and its subsequent impact on rating agencies and the bond market in Singapore. EM argued to be more effective in misleading rating agencies and the bond market if it leads to inflated ratings and reduced bond yields. They indicate significant efforts by issuers to manage earnings upwards before an SBO. The findings are also consistent with the notion that sample firms attempt to window dress their firms' performance before an SBO. However, the results fail to provide enough evidence the EM of SBOs misleads those rating agencies.

Existing literature delves into the relationship between income smoothing and the under-pricing of SEO. Under-pricing, on the one hand, is the tendency of SEOs to price their new shares on the offer day, below the closing price on the day before (He, Wang and Wei, 2014). Conversely, income smoothing is the use of discrete accounting techniques by managers to level out fluctuations in net income from one reporting period to the next. Also, it can be considered as the manipulation of accruals to reduce earnings volatility. Income smoothing is motivated by the fact that investors are willing to pay a premium for shares in firms with stable earnings (Salehi and Manesh, 2011). Furthermore, a firm with an excellent profitable prospect will have a higher share price and can raise more funds during the SEO issuance.

Thus, it can be argued that EM is a precursor of income smoothing with the former preceding the latter. Several studies document this phenomenon. For example, Ngo and Varela (2013) examine the impact of earning smoothing on the under-pricing of SEO to investigate whether earnings smoothing can add value to firms by reducing the degree of SEO under-pricing. Findings suggest that income smoothing enhances the information content of the effect of the share price on future earnings. Income smoothed reports also improve the ability of potential investors to make informed investment decisions as well as improving the share prices. Arguably, therefore, that managers have enough incentive to smooth earnings to enhance the share prices of a firm during an SEO.

From prior research, it can also be argued that SEOs that employ aggressive accounting decisions are also more likely to aggressively push up their offer prices at the point of issuing the SEO, hence leading to a decrease in the degree of SEO under-pricing. This phenomenon is prompted by the desire of SEO issuers to boost their earnings before an SEO to maximize proceeds from the issue. Aggressive accounting can be inferred as the employment of accounting practices that delay or cover up recognition of losses or are quick to recognise future incomes (Kamarudin, Ismail and Mustapha, 2012). These practices are carried out with the motive of overstating a firm’s earnings.

Attempts have been made to understand the association between the pricing of SEOs and EM. Kim and Park (2005) examine the relations between EM by firms offering SEO and the pricing of their offers in the US. The study suggests a negative correlation between SEO under-pricing and discretionary accruals, suggesting that SEOs actively engage in EM to push their offer prices up to receive more funds proceeds from their offering. Significantly, higher information asymmetry increases the relation between EM and SEO under-pricing.

Departing from publicly listed firms, existing research has also attempted to unearth whether private placement issuers manage their earnings around SEOs. Besides the evidence available suggests that EM also exists in private placements. For example, Daoping et al. (2010) examine whether Japanese private placement issuers manipulate their earnings around the time of issuance and the relationship between EM and the post-issue share underperformance. The study argues that managers of Japanese private placement issuers tend to engage in income increasing EM around the time of the issuance. Moreover, income increasing accounting accruals made at the time of private placements predict the post issue long-term share underperformance. Evidence suggests that EM serves as a source of investor over-optimism at the time of private placements. Overall, the evidence shows that the income increasing accounting accruals made at the time of private placements predict the post issue long-term share underperformance.

Further, the literature suggests that capital market expectations and share valuations are primary sources of managers' pressure to engage in EM. Similarly, the evidence available suggests that earnings manipulation activities tend to be habitual or persistent. Once managers have engaged in EM, the practice becomes habitual and they tend to continue in the same trajectory soon because the market places a premium on consistent earnings as opposed to those, which fluctuate. A case in point, Chang and Lin (2018) investigate the relationship between current and past period earnings manipulations for multiple SEOs. The study is anchored on the "habitual hypothesis" which is interpreted as a firm's continuous aspiration to continue meeting and

possibly beating earnings benchmarks. Findings intimate that prior manipulators appear to engage in real activities as well as use accounting accruals to alter reported earnings. It can be inferred that “EM inertia” exist, which is the tendency to continue engaging in EM to satisfy investors' demand for enhanced earnings.

During the SEO, financial analysts subject firms to considerable scrutiny; thus, any attempt by managers to engage in earnings manipulation must be opaque enough to withstand the scrutiny. To further shed light on the impact of EM in SEOs prior research segregates EM into accrual manipulation (AM), and real activity manipulation (RAM) and both types of EM are examined in terms of their effects on SEOs. The evidence suggests that real activity manipulation is emerging as a significant source of EM since it is opaquer and more challenging to discern. Furthermore, Roychowdhury et al., (2012) assess the role of both AM and RAM in inducing overvaluation at the time of an SEO in the US. Evidence documents that where scrutiny of the financial reports increases during significant transactions like SEOs, managers exhibit a preference for RAM since it is opaquer and complex to discern compared to AM. However, engaging in RAM is costlier to the firm than AM, hence; managers will still be inclined to engage in AM than RAM unless the payoff for using RAM is justified. In summary, the reliance on both types of EM in SEO suggests that earning manipulation is more prevalent when firms opt to engage in SEOs.

In summary, studies in developed markets have mostly dwelt on the performance of SEOs or the effects of EM around the time of SEO with discretionary accruals employed as a popular proxy of EM. In this section, Table 4.11 summarizes the key studies examined.

Table 4.11: Summary of Key EM, SEO and Firm Performance Literature in Developed Markets

Author	Country Examined	Proxies Used	EM Effect on SEO performance
Loughran Ritter, (1997)	US	Share returns used as a proxy for investment performance	High performance before issue. Underperformance in the post SEO issue period
Rangan (1998)	US	DAs used as a proxy for EM	Presence of DAs predict the poor performance of SEOs
Zhu et al (2010)	US	DAs used as a proxy for EM FFOs used as a proxy for financial performance	Increased levels of EMs around firms issuing SEO
Shivakumar (2000)	US	Abnormal accruals have used a proxy for managerial discretion	Net income unusually high around SEO
Ibrahim et al (2011)	US	DAs used as a proxy for accruals EM Unusual events used as real proxy EM	Accruals and real manipulation around SEO
Chen and Gu (2008) Shivakumar (2009)	US	DAs used as a proxy for accruals EM	EM positively related to SEO abnormal returns
Ngo and Varela (2013)	US	DAs used as a proxy for income smoothing	Income smoothing reduces the level of SEO under-pricing
Kim and Park (2005)	US	Average offer price used as a proxy for SEO under-pricings	A negative correlation between SEO under-pricing and DAs as SEOs engage in EM to inflate the offer price
Daoping et al (2010)	Japan	DAs used as a proxy for EM	Levels of EM noticeably spike around SEO issuance
Chang and Lin (2018) Roychowdhury et al (2012)	Taiwan	DAs used as a proxy for EM Abnormal levels of FFO used as a proxy for REM	Both AEM and REM were observed in SEOs.

4.5.2 Empirical Literature Review in Selected Emerging Markets

Emerging markets have attracted global investor attention and acquired new significance in the last two decades. A considerable number of international investors are gradually realizing that they can generate more returns in emerging markets than mature markets, *albeit* at a higher risk of liquidity and volatility of exchange rates. Usually, emerging markets are in the transitory phase between the developing stage and attaining a fully developed status. These markets have become the emerging frontier in terms of shares offers as new firms continuously engage in SEOs at an increasingly higher rate to finance their growth (Sechel, Ioana-Cristina, Gheorghe, 2014). The main feature that makes these emerging markets attractive remains the capacity to provide investors with an opportunity to realize higher profits more than in the developed mature markets.

There exist limited prior studies undertaken showing the relationship between EM and firm performance in SEOs issuing firms in emerging markets. The extant literature available shows a paucity of research output on EM and SEOs in the emerging markets. To support this, Vladu and Cuzdriorean (2014) analyze prior research emanating globally from accounting journals, which has covered the area of earning management detection (EMD). Globally, evidence on the authorship and location of EMD research indicates that a more significant majority of the studies have been undertaken in the developed markets of the US, China, Canada, Australia, Japan, and the UK. According to the authors, these countries account for 95% of the research output on EMD globally. These point out a marked scarcity of research output on EMD in the emerging markets and, more specifically, in Africa.

Initially, the relationship between EM and the performance of SEO has been explored. For instance, Narayan and Dandale (2008) investigate whether firms in India manage earnings before SEO issuance as well as the post-issue performance of the SEOs in India. Findings suggest credible evidence of EM before the SEO. These results are consistent with previous findings, which suggest that SEOs inflate earnings temporarily around SEO. The same earnings fail to persist and fall after the SEO issuance. This phenomenon is attributable to accrual reversals right

after the SEO issuance to correct the EM previously undertaken. Ardekani, Younesi, and Hashemijoo (2012) conduct a study on acquisitions, EM, and firm performance with findings showing that share-based SEOs manipulate their earnings more than cash-based SEOs during the period preceding the acquisition announcement date. More evidence from the study shows an inverse relationship between EM before the issuance and performance of firms following the acquisition date for share acquirer firms.

EM among listed firms has been found to spike during economic crises. When managers struggle to present favourable earnings to shareholders during times of economic depression, they are being compelled to engage in EM to maintain the prior period's earnings momentum. For instance, Silva, Weffort, Flores, and Silva (2014) seek to establish whether firms listed on the Brazilian market are inclined to adopt EM practices during economic upheavals. Statistical tests employed show a significant correlation between economic crisis and earning management practices in Brazilian listed companies. Consistent with previous interpretations, the authors acknowledge that EM is usually characterized as a way in which opportunistic managers aim to deceive financial statements external users within the framework of acceptable standards.

Excessive discretion and heavy reliance on manager judgment have been identified as a pivotal contributor to EM. For example, employing current discretionary accounts as a proxy for EM, Narayan and Dandale (2008), document evidence of EM before the SEO for Indian firms. Further, they show that the freedom granted to companies to price their capital issues were an avenue for these issuers to manage their earnings.

EM as a whole may be more pervasive in emerging markets rather than being confined to SEO, which is the case for developed markets. Reddy (2009) examines the practices of Indian SEOs during their issue periods. Current and long-term discretionary accruals are used as proxies for

EM. Total discretionary accruals are measured by the sum of current discretionary accruals, non-discretionary accruals, and long term discretionary accruals as well as long term non-discretionary accruals. The author argues that cash flow is a more desirable measure of operating performance than earnings. Earnings are affected by variables such as interest expense, taxes, and exceptional cases, which obscures operating performance. However, cash flows remain immune to changes in tax status or capital structure. Moreover, the author relies on regression to analyse the influence of EM on the post-issue operating performance of SEO firms. They show apparent differences in levels of current discretionary accruals between SEO issuers and non-issuers. Analysis of post SEO firm operating performance suggests significant differences for SEOs and debt offering firms. Overall, EM harms immediate post SEO operating performance. However, in the long term, EM noticeably has a positive impact on SEOs. On the one hand, these results are consistent with the ones by Yoon and Miller (2002) as well as Dechow, Hutton, Kim and Sloan (2012). Alternatively, they are in contrast to those by Rangan (1998) as well as Teoh et al. (1998). It is worth noting that Reddy (2009) finds a statistically insignificant relationship between EM of SEOs compared to those in non-SEOs. However, the author does not address the question of why the apparent high degree of EM for SEO issuers compared to non-SEO issuers is statistically insignificant.

Also, existing literature on the emerging markets has attempted to shed light on the link between income smoothing and its effect on the share price. It is worth reviewing the literature on earnings or income smoothing due to the two concepts of proximity to EM. The evidence suggests a causal relationship between the two factors, with the income smoothing effect reflected in the share price. For example, Lerskullawat, (2011) acknowledges that developed markets differ from emerging markets due to characteristics such as; high price volatility, small market stature, inefficiency and illiquidity. Results show that the announcement of SEO caused the share prices

to react negatively. Additionally, share prices respond negatively in the long period after the SEO announcement.

In Africa, Seetharam and Cunha (2018) examine the long-run performance of SEOs in South Africa and attempt to address the question of whether investor sentiments influence long-run SEO performance. The study argues that the market timing theory plays a minimal role in the overall SEO performance. The authors also investigate whether the short-run performance of equity issues in South Africa is a consequence of bad timing or a measure of last resort. Results show that the market reacts negatively to the announcement of SEOs. The study does disapprove of the market timing theory. However, it only emphasizes SEO financial performance but does not delve into the attributes which may explain the underperformance such as EM. For example, Rabin (2016) investigates whether EM exists in South African listed firms with findings confirming it does. Additionally, Swai and Mbogela (2016) examine the effect of AEM and REM on the effect of ownership structure across East African firms. They find a minimal impact of AEM on ownership structure. However, they report a negative and statistically significant relationship between institutional ownership and REM. This study by Swai and Mbogela (2016) yields essential insights into examining the personal effects of AEM and REM in the context of African emerging markets. However, a possible research gap is identified because AEM and REM remain unexamined in the context of African emerging markets. In summary, the evidence on the presence of EM and its subsequent effect on SEOs firm performance in emerging markets is limited and the available literature does not address the relationship conclusively as summarized in Table 4.22.

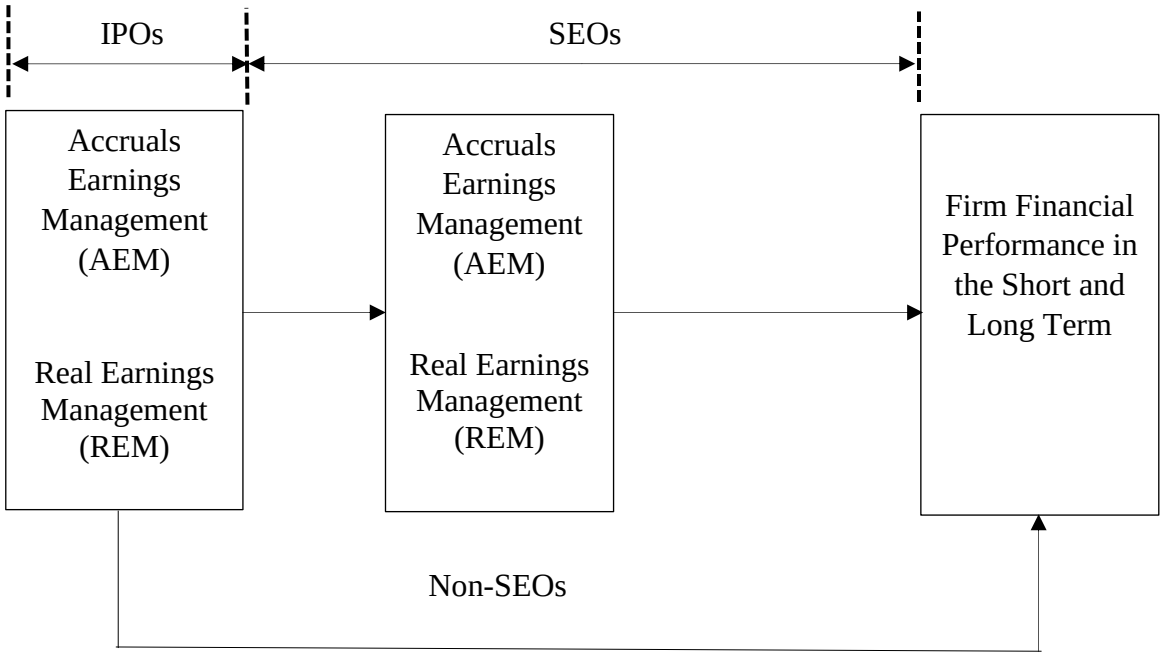
Table 4.22: Summary of Key EM, SEO and Firm Performance Literature in Emerging Markets

Author	Country Examined	Proxies Used	EM Effect on SEO performance
Narayan and Dandale (2008)	India	DCAs used as a proxy for EM	Observable EM during SEO
Reddy (2009)	India	DAs used as a proxy for EM	Possible EM in both SEO issuing and non-issuing firms in emerging markets
Seetharam and Cunha (2018)	South Africa	Holding period returns approach matching styles and market model	Long run share performance is not influenced by investor sentiment.
Rabin (2016)	South Africa	Discontinuities in earnings distributions	Shows presence of EM

4.5.3 Conceptual Model of EM, SEOs, and Firm Performance

The conceptual model maps out how the various variables under investigation integrate with the resultant dependent variable being firm performance. This model references both the theoretical and empirical literature reviewed in the preceding chapters. Typically, firm issues stock for the first time in an IPO. All other subsequent share offers in the life of the firm are collectively referred to as SEOs with the evidence from chapter three in this study showing the probable existence of earnings managed SEOs. The primary focus of this study is the supposed presence of EM in SEOs and its impact on firm performance is the primary focus of this study. EM is classified into two categories: AEM and REM.

Figure 4.11 Conceptual Model for EM, SEO and Firm Performance



Source: Author's reconstruction from the literature review

Figure 4.11 epitomizes a conceptual model depicting the linkage between EM in both IPOs, SEO and firm performance based on existing empirical evidence. Prior research suggests that EM is present in SEOs. However, as shown by the gaps in previous literature, the extent and prevalence of EM in SEOs and its impact on financial performance in emerging markets remain unclear. It is worth capturing IPO in the framework since it usually precedes an SEO; a firm must issue an IPO before it issues an SEO. Besides, a firm also must be a publicly listed company before it can issue an SEO. Furthermore, the relationship between, SEOs and firm performance considering EM takes place under the following theories: information asymmetry theory, agency theory and signalling theory. Therefore, the conceptual model, anchors the hypothesis developed in this study in the next chapter.

4.6 Chapter Summary

This chapter sought to shed more light on the significance of SEOs as an essential step before delving into their significance in the context of the African securities market. The motives for engaging in SEOs have also been examined. The empirical literature review carried out in the previous subsections indicates a relative majority of the studies in the area of EM, SEO and firm performance have been undertaken in the developed markets. There is an evident paucity of research on the same in emerging markets, more significantly in Africa. This thesis embarks on filling this void.

In the emerging markets, many of the studies have examined EM as a standalone concept on the one hand or the characteristics of SEOs and firm performance separately, on the other hand. There is a paucity of studies addressing the nexus between, EM, issuance of SEOs and firm performance in emerging markets and more noticeably in Africa. This study seeks to shed light on this relationship. The next chapter focuses on the formulation of research hypotheses.

CHAPTER FIVE
HYPOTHESIS DEVELOPMENT

5.1 Introduction

In this study, the antecedent chapters have delved into the theory and evidence of EM around SEOs and their consequent impact on firm performance. The deliberations arising from these preceding chapters lay the foundation for the postulation of testable hypotheses.

5.1.1 Goal of this Chapter

A reasonable hypothesis should be directly attributable to a stated theory as well as being able to operationalize variables in a form that can be tested. The primary goal of this chapter is to develop a testable hypothesis anchored on the theoretical and empirical framework as deliberated upon in the antecedent chapters.

5.1.2 Layout of this Chapter

This chapter is structured as follows: Section 5.2 provides an in-depth analysis of the hypothesis development and lists each hypothesis based on the developments of existing literature discussed in the preceding chapters. Section 5.3 provides an overview summary of this chapter. For consistency purposes, EM can be interpreted as the standing abbreviation for EM.

5.2 Hypotheses Development

Critically, this section critically formulates six key hypotheses applicable to the scope of EM and the financial performance of SEOs. The hypotheses formulated in this section are the ones to be tested in subsequent chapters.

5.2.1 Hypothesis One: The Extent of EM in SEOs relative to non-SEOs

Hypothesis one seeks to examine the extent of EM in SEOs relative to non-SEOs in selected African emerging markets. This study hypothesizes that EM is probably more prevalent in SEOs in contrast to non-SEOs in African securities markets. Consequently, it is vital to determine the extent of EM in SEOs and non-SEOs as well as compare the prevalence of EM in both categories of firms. This hypothesis is anchored on the basis that, apart from determining the existence of EM in SEOs, it is also imperative to determine the extent of EM in these SEOs and compare this with the extent of EM in non-SEOs.

As examined in the initial chapters, studies have either examined EM alone on the one hand and SEOs performance on the other. To the best of my knowledge, no study has attempted to shed light on the extent of EM in SEOs relative to non-SEOs in African emerging markets. This is the first study that will attempt to establish whether there is a difference between the prevalence of EM in SEOs *vis a vis* the EM in non-SEOs. It is imperative to establish whether EM materially affects the content of the financial reports in an attempt by managers to induce investors to participate in SEOs.

A few studies attempt to explain probable firm EM practices while others endeavour to explain why managers experience pressure to manage earnings in the first place. For example, Chang and Lin (2018) investigate the link between past and current EM practices for multiple SEO firms and establish that EM tends to increase incrementally over time. This finding dovetails with the notion that prior earnings manipulators continually push up earnings levels around SEO issuances. Similarly, Guthrie and Sokolowsky (2010) suggest that managers occasionally behave opportunistically by engaging in EM while also observing that SEOs owned by gigantic institutional shareholders usually undergo the pressure to manage earnings.

Paradoxically, SEOs would engage in EM only to be punished by investors who anticipate the practice will take place and subsequently, they adjust their market share valuation of the issuing

firm. For example, Caton et al. (2011) enunciate that due to the prevalence of EM in SEOs, issuers are unable to signal the absence of EM to potential investors credibly. Since investors are likely to paint all SEOs with the same brush with the presumption that EM has taken place, the authors suggest that EM in SEO is rational behaviour by issuers before SEO announcements in conformity with what the market expects.

EM practices are argued to be more pervasive in larger firms which are likely to be listed compared to the smaller firms. Smaller firms are more likely to time the market when issuing SEOs, while large firms are more likely to engage in EM. Therefore, the evidence indicates that EM is into no small extent, more prevalent in large firms. This hypothesis focuses on listed firms which are probably on average larger firms compared to the privately held ones. For example, Shu and Chiang (2014) investigate the firm size, timing and EM of SEO on the Taiwanese shares exchange. Their findings suggest that EM is positively related to short term wealth but negatively related to long term wealth. The firm is likely to gain in the short term but lose in the long term. In summary, these sampled studies available remain mostly silent on whether EM is prevalent in SEOs in contrast to non-SEOs. Given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

H_0 = *SEOs do not experience statistically significant levels of EM compared to non-SEOs in select African securities markets.*

H_α = *SEOs experience statistically significant levels of EM compared to non-SEOs in select African securities markets.*

5.2.2 Hypothesis Two: The Relationship between AEM and REM in SEOs

Hypothesis two presupposes that EM can be fragmented into real earnings management (REM) and accruals earnings management (AEM). The hypothesis presupposes that both types of EM exist in SEOs as established by the results of the first hypothesis. This hypothesis seeks to examine the relationship between AEM, and REM in SEOs undertaken in African securities markets.

The extant literature attempts to differentiate the role each type of EM plays in SEOs (Enomoto et al., 2015). However, a limited number of studies have attempted to examine the distinction between AEM and REM and their relationship with SEOs, with some attempting to link the two forms of EM to SEOs. For example, Roychowdhury et al., (2012) assess the role of both AEM and REM in inducing overvaluation of SEO and observe that overvaluation of SEOs is precipitated by managers engaging in REM, which is typically considered more opaque and complex to unearth in contrast to AEM. Additionally, whether managers employ both AEM and REM as a multipronged approach to engage in EM has been called to question. For instance, Zang (2012) examines whether managers use REM and AEM as substitutes in managing earnings. The evidence shows that managers trade-off between the two methods of EM depending on their opportunity and relative costs while they also rely on both types of EM as substitutes.

Similarly, Cohen and Zarowin (2010) investigate AEM and REM activities around SEOs in the US and they show that REM has a more considerable impact on EM than it had been earlier envisaged. The authors suggest that a firms' choice to engage in REM or AEM activities around SEO vary predictably as a function of the firm's ability to use AEM as well as the opportunity costs for using each type of EM. However, the study by Cohen and Zarowin (2010) only examines REM and AEM independently but is silent on the relationship that subsists between the two forms of EM.

In a similar study, Das, Mishra and Rajib (2017) examine the relationship between AEM and REM in India while attempting to address the question of whether the relationship is complementary or a substitute one. They show that firms undertake both types of EM with a higher predisposition towards AEM. Also, they unearth a positive as well a complementary relationship between the two forms of EM. However, the authors in this case only evaluated Indian firms as a whole and not SEOs which is the focus of this study. Therefore, the literature on the relationship between REM and AEM in the context of SEOs, therefore, remains inconclusive. On the same note, Gao, and Wang (2017) investigate the trade-off between REM and AEM in Chinese listed companies. On the one hand, they report that levels of REM are higher for firms with lower corporate governance, higher financial leverage, and lower government intervention. Conversely, firms operating in a less stringent legal environment, dual-listed firms and firms with higher growth prospects are more likely to engage in AEM. Given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

H_0 = *There is no statistically significant relationship between REM and AEM in SEOs in select African securities markets*

H_α = *There is a statistically significant relationship between REM and AEM in SEOs in Select African securities markets*

5.2.3 Hypothesis Three: The effect of EM on SEOs Short-Run Firm Performance

Hypothesis three seeks to test the effect of EM on the short-run financial performance of SEOs. This study hypothesizes that EM is present in SEOs and consequently influences the financial performance of SEOs in select African securities markets. The hypothesis is formulated from the gaps in prior studies that examine EM on the one hand and the financial performance of SEOs on the other hand. However, limited if any of the studies have attempted to directly link EM to the financial performance of SEOs in the short run. (see Chang and Lin, 2018; Ibrahim et al., 2011; Narayan and Dandale, 2008; Ngo and Varela, 2013; Rangan, 1998; Reddy, 2009; Shivakumar, 2009 Shu and Chiang, 2014; Teoh, Welch and Wong, 1998; Yoon and Miller, 2002). The implication of this absence of direct association between EM and short-run performance is that investors may fail to take cognizance of earnings managed financial reports which adversely influences their judgement.

However, as reviewed previously, an observable majority of these studies examining EM on the one hand and firm performance, on the other hand, have been undertaken in developed markets (DMs) which differ from emerging markets. For example, Reddy (2009) argues that EM in emerging markets warrants further review grounded on the reasoning that it may probably be more pervasive as a whole, in financial reports emanating from emerging markets, rather than just being confined to SEOs as established in developed markets. Moreover, it would be erroneous to assume results in emerging markets mimic those in the developed markets because these markets acutely differ as clearly brought out in a sample of studies (See Griffin, Kelly and Nardari 2010; Lin and Wu 2014).

The link between EM and SEOs financial performance also alluded to, *albeit* broadly, in the literature. In particular, Lim, Thong and Ding (2008) examine the link between EM and SEO in diversified firms and they demonstrate that diversified firms with high discretionary accruals underperform other non-diversified firms. Similarly, Cohen and Zarowin (2010) suggest that SEOs actively engage in both AEM and REM and the subsequent decline in post SEO

performance is attributable to EM with the effect of REM being more severe on post-issuance performance compared to AEM. However, the study does not address the effect of EM on short-term performance and in particular short event windows adequately during the SEO. Similarly, given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

$H_0 =$ *EM has no statistically significant effect on the short run firm financial performance of SEOs.*

$H_\alpha =$ *EM has a statistically significant effect on the short run firm financial performance of SEOs.*

5.2.4 Hypothesis Four: The Effect of EM on the Long-Run Performance of SEOs

Hypothesis four is anchored on the presupposition that the financial performance of SEOs is optimal at around the time of offering, followed by a marked decline in the long run. The short term peak in the performance of SEOs followed by their sustained poor performance, in the long run, is broadly attested to by literature. For example, Loughran and Ritter (1997) establish that the median profit falls from 5.4% in the financial year after the SEO to around 2.4% four years after the issue with a similar decline in the median return on assets is exhibited. Interestingly, non-SEOs that mirror the issuing firms in asset size, industry and operating performance do not exhibit the same decline in performance. In the same context, Jegadeesh (2000) investigates the long term performance of firms that issue SEOs relative to a variety of benchmarks. Significantly, the evidence shows that these SEOs underperform set benchmarks over five years. Also, additional studies demonstrate that EM consequences manifest themselves in the first year following the suspect reporting period and up to three years later (Bowen, Rajgopal and Venkatachalam, 2008; Christensen et al., 2017; Dechow et al., 2012; Dechow and Dichev, 2002; Demerjian et al., 2016).

To further explain the financial performance of SEOs in the long run, Huang et al. (2014) argue that post-issue SEO underperformance is driven in part by smaller firms during their growth stage and they show that long-run share returns of SEO firms on average underperform their matching firms following the offering date. However, the study is silent on the link between EM and SEO performance in the long run. Similarly, Basdekidou (2016) argues that sluggish financial performance is observed during a long term three years after the SEO issue. In both cases, the literature is silent on the drivers of SEO performance in the long run and this hypothesis attempt to shed light on this supposed link.

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Notwithstanding the above contributions, the literature on SEO underperformance fails to shed enough light on the probable cause of SEO underperformance with the inclusion of EM, particularly in emerging markets of Africa. Given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

H_0 = *EM has no statistically significant effect on the long-run performance of SEOs in select African securities markets.*

H_α = *EM has a statistically significant effect on the long-run performance of SEOs in select African securities markets.*

5.2.5 Hypothesis Five: The Role of Corporate Governance in Mitigating EM in SEOs

Hypothesis five is postulated based on the potential role corporate governance plays in mitigating EM. Arguably, EM is perceived to be detrimental to potential investors who are likely to base their judgement on the content of financial statements that may have their earnings managed. Corporate governance exercises an oversight role in ensuring that managers exercise their discretion prudently for the benefit of shareholders and investors.

As reviewed in previous chapters, several studies have attempted to shed light on the role corporate governance plays in mitigating the effects of EM. For example, Ching et al., (2006) examine the use of current discretionary accruals by firms that issue SEOs and show that firms are in the practice of managing earnings in pre-SEO years while the same earnings fall during the post-SEO period. Moreover, family-managed firms were more inclined to use positive discretionary accruals in the period preceding the SEO. Acceptable corporate governance practices such as the presence of independent directors and external block holders work in constraining EM. To illustrate this, Chen (2017) examines the impact of improved corporate governance on market reaction to SEOs and they document evidence showing that corporate governance assures investors of their protection leading to improved post-issue performance of SEOs.

Ownership and managerial control impact to a large extent, the corporate governance of a firm. For example, Chi et al. (2015) investigate the relationship between family firms and EM with the evidence suggesting that board independence is essential in mitigating EM practices in family firms. Similarly, Huang and Tompkins (2010) evaluate the role of corporate governance in abnormal returns around SEO announcements by publicly traded US firms. They demonstrate that the segregation of duties, particularly in the CEO and board chairman position inculcates investor confidence leading to an SEO's improved performance.

Additional evidence points to a supposed link between the governance structure, EM, and the overall performance of SEOs. For instance, Iqbal et al. (2009) probe the relation between corporate governance and EM around UK rights issues with the evidence suggesting that firms with lower proportions of non-executive directors and absence of large block owners, were more likely to manage earnings at the time of the SEO. Similarly, Dimitropoulos and Leventis (2012) investigate the influence of corporate governance on EM in US-listed banks and argue that banks with efficient corporate governance mechanisms engage in less aggressive EM behaviour. Similarly, Lo, Wong, and Firth (2010) investigate whether suitable governance structures help constrain opportunistic behaviours by managers and establish that the quality of corporate governance is critical in deterring earnings manipulation.

Overall, it is arguable that the presence of block holders, institutional ownership, ownership structure and managerial ownership all have an impact on the prevalence of EM in SEOs. However, the scope of the influence of corporate governance on EM and SEOs in emerging markets remains inconclusive as argued by Saenz Gonzalez and Garcia-Meca (2014) who attest to this notion when they highlight the presence of different dynamics and business environments in emerging markets. These markets are characterized by controlled family ownership and weak legal protection. These unique attributes make it more improbable to argue that the EM practices in Western markets can quickly be adopted in emerging markets without an in-depth investigation. Given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

H_0 = There is no statistically significant relationship between corporate governance and EM in SEOs in select African securities markets.

H_α = There is a statistically significant relationship between corporate governance and EM in SEOs in select African securities markets.

5.2.6 Hypothesis Six: The Extent to which EM determines Earnings Quality in SEOs

Hypothesis six relates to the influence of EM over earnings quality in SEOs. Earnings quality can be termed as the ability of reported earnings to reasonably predict a firm's future earnings. The opinion is divided on the effect of EM on earnings quality in SEOs. On the one hand, EM is perceived as detrimental because it impedes the true and fair view aspect of financial reports. In contrast, other studies argue that EM can be interpreted as a signal that a firm will engage in a future offer; this is considered useful information for investors. Besides, EM also levels out the fluctuation of earnings over given periods, a characteristic that investors find attractive. Also, hypothesis six is postulated because earnings quality has decreased over time with the rise of earnings volatility and a decrease in the relevance of earnings as established by Srivastava (2014).

The extant literature has attempted to address the relationship between EM and earnings quality. For example, Hejazi et al., (2011) investigate the effects of income smoothing and earnings quality on evaluating the performance of companies listed on the Iranian stock exchange with results suggesting that performance is not influenced by income smoothing or earnings quality. Similarly, Lo (2008) adopts the view that EM is potentially harmful to financial statements users because it impairs the quality of the financial reports. Furthermore, audit quality, a key component of best corporate governance practice, arguably mitigates against EM. For example, Chi et al., (2011) argue that good audit quality lowers the incidences of EM, which in turn improves the level of earnings quality. Given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

$H_0 =$ EM does not have a statistically significant relationship with earnings quality in SEOs in select African securities markets.

H_α = EM has a statistically significant relationship with earnings quality in SEOs in African securities markets.

5.2.7 Hypothesis Seven: The Effect of Information Asymmetry on EM in SEOs

Hypothesis seven delves into the role of information asymmetry as a catalyst for EM in SEOs. In this study, information asymmetry acquires significance because it is one of the adverse attributes of the agency theory, when managers may not always act in the best interest of investors. This attribute of information asymmetry is alluded to in prior literature examined in this study (See Bhattacharya et al., 2013; Chauhan, Kumar and Chaturvedula, 2016; Jamalinesari and Soheili, 2015; Jiang and Lee, 2013; Karpoff et al., 2013)

Information asymmetry refers to a scenario where managers and other firm insiders have access to additional and critical information outside other stakeholders' grasp. The literature on EM suggests that there is a probable indirect relationship between information asymmetry and EM. For instance, Richardson (2005) argues that when information asymmetry is high, financial statement users are unable to monitor executive actions which give rise to EM for firms in the US. Given this finding, it is crucial to investigate the link between information asymmetry and EM in the context of SEOs in African emerging markets.

Managers, by their position, possess a unique advantage over the market in predicting firm-specific events. This inherent advantage propagates information asymmetry between firm managers and the market of which investors are also players. Information asymmetry acquires even more significance when a firm tries to access the capital market during SEO issuance. To illustrate this, Ravi and Hong (2014) acknowledge that information asymmetry exists between a firm and its investors. Moreover, Booth and Chang (2011) attribute the large price drop on SEO announcement to information asymmetry between managers and investors. Similarly, Samarahan and Imm (2010) examine the consequences of information asymmetry and EM towards investment in Malaysia with their findings showing that insiders with a controlling stake tend to increase EM through manipulation of discretionary accruals. Consequences of EM in the study

include inflated share prices and diminished shareholders returns when SEO underperform after their issuance.

Other studies seek to shed more light on the link between insider trading, discretionary accruals, and information asymmetry. For example, Wasan and Boone (2010) examine whether accruals exacerbate information asymmetry. The authors posit that accruals are particularly susceptible to managerial discretion, making them a focal point of information asymmetry between managers and outsiders. Their findings also suggest a positive association between information spread as measured by the absolute magnitude of total and abnormal accruals on the bid-ask spread and the performance of SEOs as depicted by adverse selection. Additionally, Cormier et al. (2013) examine the incidence of EM on information asymmetry in an uncertain environment while relying on evidence from Canada with the authors arguing that managers rely on EM as a tool for coping with uncertainty in the business environment. They also observe that opportunistic EM is likely to be higher when information asymmetry is high. Similarly, Chowdhury, Mollah and Al Farooque (2018) examine whether insiders manipulate earnings in an environment of high information asymmetry, and they show that EM allows room for opportunism by firm insiders when they buy and sell trades. Given the arguments above, the null (H_0) and the alternate hypothesis (H_α) are formulated as follows: -

$H_0 =$ *Information asymmetry has no statistically significant effect on EM in SEOs.*

H_α *= Information asymmetry has a statistically significant effect on EM in SEOs.*

5.3 Chapter Summary

This chapter has introduced and framed the various hypotheses that are investigated based on existing literature. Also, the chapter delves into presupposed relationships between the variables. The variables to be measured have also been discussed.

Hypothesis one tests the presence and extent of EM in SEOs. Since the literature illustrates EM is present in SEOs, this hypothesis goes a step further and tests the extent of EM in SEOs in African securities markets.

Hypothesis two is developed to test the relationship between AEM and REM, which are the main categories of EM. The question to be addressed is whether the two forms of EM are complements or substitutes when they feature in SEOs. This hypothesis sheds light on the EM category that managers prefer, and which one is more rampant.

Hypothesis three test is developed to measure the effect of EM on short-run financial performance in SEOs in African securities markets. Past literature shows the existence of EM in SEO but falls short in enunciating the effect of EM on short-run performance.

Once the link between EM, SEO and firm performance has been established in hypothesis one, two and three respectively, hypothesis four seeks to build on this knowledge by examining the effects of EM on SEO in the long term firm financial performance.

Hypothesis five shines the spotlight on the relationship between corporate governance and EM in SEOs' financial performance. The hypothesis is formulated to determine the impact corporate governance plays in mitigating EM. Findings are useful in suggesting measures that can mitigate against EM in SEOs.

Hypothesis six seeks to test the relationship between EM and earnings quality in SEO issuing firm. Since investors have been established to adjust their judgement of potentially earnings managed reports, it is vital to establish what impact EM has on the earnings quality of financial reports among SEOs.

Hypothesis seven focuses on the effect of information asymmetry, EM, and SEO in African securities markets. The objective of this hypothesis is to investigate the extent to which information asymmetry impacts EM in SEOs. A result of the examination hypothesis sheds light on the role information asymmetry plays in determining the extent of EM in SEOs.

CHAPTER SIX
RESEARCH METHODOLOGY

6.1 Introduction

The preceding chapter on hypothesis development sought to shed light on various hypotheses underpinning this study. A suitable research design that best analyses the research objectives and optimally present the outputs envisaged is critical. A suitably crafted research design is the one that maps out the research strategy, sampling design and choice of research tools as well as statistical techniques. This chapter endeavours to devise an appropriate method for developing new facts and suggest additions to existing knowledge on EM, SEOs, and firm performance. The chapter defines the scope and limitations of the research design and situates it among existing research traditions. This research adopts a philosophical method of research that is adopted to fill existing voids in the area of EM and SEO in the emerging markets on the African continent.

6.1.1 Goal of this Chapter

This chapter provides a framework of the overall research design through a detailed description of data sources, sampling plan and estimation techniques for testing the discussed hypotheses. The chapter presents the philosophical assumption underpinning this research, devises a suitable research strategy and outlines the empirical techniques employed. This study makes comparisons and adoptions on existing suitable research techniques and estimation models as well as adopting a quantitative approach to quantify observations and make inferences on the output of data analysis.

6.1.2 Layout of this Chapter

The subsequent subheadings which outline the overall research strategy are organized as follows; Section 6.2 discusses the sample selection, section 6.3 discusses how some of the key variables used in the study are being measured section 6.4 describes in detail the various models to be

utilized in analysis, data analysis techniques and specifies the independent, dependent and control variables, section 6.6 discusses the formal tests of specification in panel data and section 6.7 summarizes the chapter.

6.2 Sample Selection

In this study, the sample is drawn from 335 firms participating in 523 SEOs issued in 16 selected African securities countries, issued between 2008 to 2017 in select African securities markets. The markets are chosen based on how many firms are listed, the number of SEOs and the general availability of firm-specific data. The number of firms in each country is dependent on the relative size of each exchange and the number of listed firms while concentrating on firms that have issued SEOs. This study splits up SEOs between those that consist of rights offering versus cash offers with no limitation on the size of the SEOs, due to the relatively underdeveloped secondary offering market in Africa. Since the literature examined shows that the African SEOs market is arguably nascent, there are no restrictions applied to the choice of the securities market or the market capitalization as well as the number of firms listed. Bloomberg is the primary source of firm-specific data with macro data selected from a variety of sources such as Thomson Reuters Datastream, World Bank Data, IMF World Economic Outlook Database, African Development Data and OECD Statistics. The sample selection excludes the financial and banking companies because of the complexity of extracting accruals from their specialized financial statements structure. Moreover, financial institutions are likely to have high leverage ratios, which distort the accounting ratios used in the model for computing discretionary accruals. Several studies report this attribute and, these include; Cohen and Zarowin (2010), Dechow et al., (2010), Karpoff, Lee and Masulis, (2013), Lin, (2011) and Wasan and Boone, (2010).

A further attribute that SEO firm-specific data should include financial statements availability for at least three years before and after the SEO issuance to control for cyclical performance fluctuations in firm performance Basdekidou (2016) and SEOs must also be publicly traded.

6.3 Review and Discussion of Literature on Variables Measurement Techniques

The previous chapter dealt with hypotheses formulation, which is aligned with the research objectives. These hypotheses need to be tested with a suitable methodology. In this section, several proxies discussed are used in subsequent sections to measure the critical variables highlighted in this study.

6.3.1 Measurement of Earnings Management (EM)

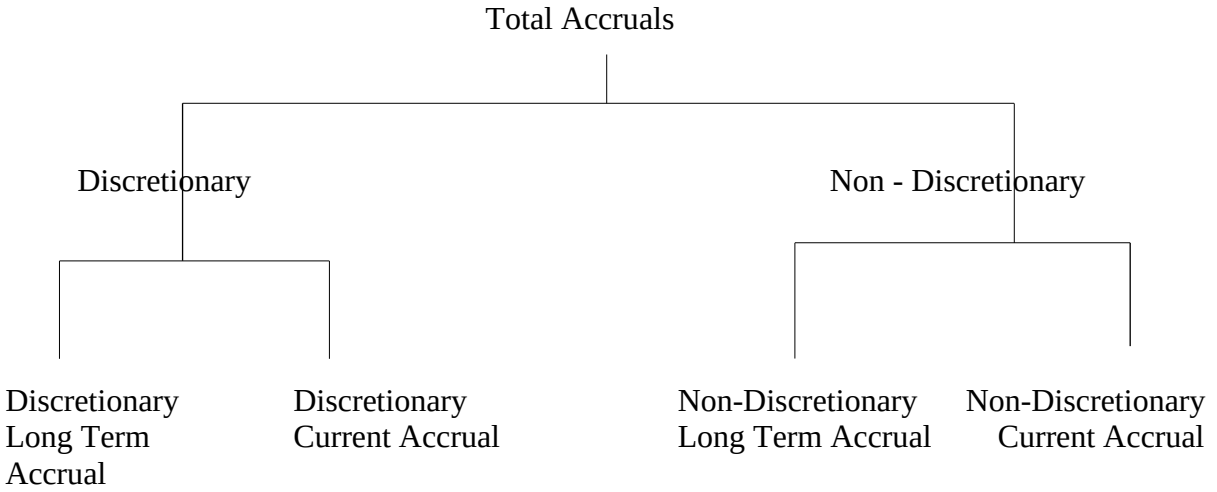
To detect EM, earlier studies have focused on accounting accruals (Healy, 1985). Accounting accruals consist of the difference between accounting earnings and cash flows from operating activities. However, more recent studies attempt to decompose EM into AEM and REM, with the sophistication of measuring techniques increasing over time (Ecker, Francis, Olsson, and Schipper 2013). Consequently, different tools and proxies are used to measure the two types of EM.

6.3.1.1 Proxy for Accruals Earnings Management (AEM)

Discretionary accruals are a commonly used proxy for AEM. They are derived from total accruals. Then a model is assumed for the process of generating the non-discretionary portion of total accruals. The use of the model enables the decomposition of total accruals into a discretionary and non-discretionary component. Subsequently, discretionary accruals are estimated using various models such as Healy's model, Jones model, Modified Jones model and industry model (See Dechow, Sloan, Sweeney and Sloan, 1995). Jones (1991) generates one of the popular models used in measuring EM. The model incorporates a change in revenues and the

level of plant and equipment as well as gross property as determinants for non-discretionary accruals. For instance, Dechow et al. (1995) modify the model contained in Jones (1991) to include changes in total sales as determinants of non-discretionary current accruals. More importantly, the model proposed by Dechow et al. (1995) has proved to be more robust, less susceptible to misspecification and more persistent in detecting AEM (Das et al., 2017). Also, Du and Shen (2018) rely on performance controlled discretionary accruals as the measure of EM in their investigation of peer performance and EM.

Figure 6.11: Decomposition of Total Accruals



Source: Author's reconstruction from the literature review.

Figure 6.11 illustrates a breakdown of total accruals which are the basis for estimating EM. Total accruals are categorized into discretionary versus non-discretionary accruals. The non-discretionary portion of current accruals refers to those which come into existence under normal business conditions such as operating cycles and projected growth. Discretionary accruals are a derivative of management choices. Further, both categories are broken down into current and

long-term accruals depending on the number of reporting periods they fall under as enumerated in Beslic, Jaksic, Andric and Jackson, (2015).

6.3.1.2 Proxy for Real Earnings Management (REM)

Although REM has not been widely studied compared to AEM going by the volume of available literature, there is a gradual increase in managers' preference for REM, shifting the research spotlight to REM. For instance, Graham, Harvey and Rajgopal (2005) aver that managers are taking real economic actions to maintain accounting appearances, a good example being EM. The authors survey whether managers are inclined to engage in REM, and they find that 80% of the managerial participants will slash their spending on maintenance, advertising, and research to meet earnings targets.

Also, the extant literature documents several metrics used to measure REM. For instance, Roychowdhury (2006) focuses on sales manipulation, reduction of discretionary expenditures and an overproduction to measure REM. In a more comprehensive analysis, Cohen and Zarowin (2010) identify the following methods of real earnings manipulation; accelerating the timing of sales through increased price discounts or more lenient credit terms, reporting of the lower cost of goods sold through increased production and decreases in discretionary expenses such as advertising, research and development (R&D) as well as selling, general and administration (SG&A) expenses. Normal levels of cash from operations (CFO), discretionary expenses and production costs are generated relying on the model developed by Cohen and Zarowin, (2010); Dechow, Sloan, and Sweeney, (1995); and Roychowdhury, (2006).

Emerging evidence suggests that cash flow is a crucial variable in measuring REM. For example, Li (2010) documents REM measures as abnormal levels of cash flow from operations and production costs. Also, the same variables are also used in similar related studies (Gunny, 2010; Tabassum et al., 2015). Similarly, Razzaque, Ali and Mather (2016) examine REM in family-

owned firms in Japan and cash flows from operations, abnormal discretionary expenses and abnormal production costs emerge as the primary measures of REM.

6.3.2 Measurement of Corporate Governance

As identified in preceding chapters, corporate governance has been documented as a useful mitigating variable against EM in the developed markets. Empirically, the same cannot be stated for emerging markets given that firms operate under a different business environment (González and García-Meca, 2014). Available literature relies on a host of measures for corporate governance such as independent directorship and quality board characteristics (El Diri et al. 2020, Chen et al. 2007 Hassan and Ahmed 2012 and Huang and Tompkins 2010, CEO duality, board independence and institutional ownership, Bello et al., 2016), board characteristics and presence of audit committee (Ghosh et al., 2010; Jaggi, Leung, and Gul 2009).

6.3.3 Measurement of Earnings Quality

Earnings are considered to be of high quality if they avail more information about a firm's financial performance that is relevant for decision making (Dechow et al., 2010). The existing literature documents various measures to be appropriate indicators of earnings quality in the financial statements. For instance, DeFond (2010), Dechow, et al. (2010) and Dichev, Graham, Harvey, and Rajgopal (2012) suggests several useful indicators for earnings quality such as earnings persistence, accruals smoothness and earnings restatements.

Determining the quality of earnings is the first step in the overall measure of earnings quality. For example, Abdelghany (2005) outlines three basic approaches to measure the quality of earnings. The first approach focuses on the variability of earnings based on the notion that managers tend to smooth income because of investors' desire for consistent and increasing income. The second approach focuses on earnings surprise, as contained in the beginning balance of net operating assets to sales. This approach presupposes that firms with a large beginning

balance of net operating assets compared to sales are less likely to report a predetermined earnings surprise. Earnings surprises are reported earnings that fall way above or below analysts' expectations. The third approach focuses on cash from operations to income ratio. This approach is anchored on the notion that if cash flows amount shown in the statements mirror the amount of cash available, it translates to higher quality earnings. Similarly, Hejazi et al. (2011) measure earnings quality by comparing the amount of cash from operating activities to the amount of the accrual. When the amount from the former is higher than the latter, a firm is perceived to possess a high level of earnings quality. On the other hand, higher accruals amount compared to cash from operating activities is an indicator of low earnings quality. Additionally, Adut, Holder and Robin (2013) rely on the relation between accruals and realized cash flows to be a measure of accrual quality. Their argument is based on the positive correlation between current accruals and future cash flows.

Accruals quality has also proved to be a reliable proxy for EM with the consistency of accruals serving as a good illustrator of high earnings quality in firms. To illustrate this, Dechow and Dichev (2002) describe accruals quality in terms of the extent to which current accruals are associated with current, previous and subsequent year cash flows. The authors' definition of quality is anchored on the assumption that a firm's earnings represent current operating cash flows that are modified by accruals to be desirable predictors of future performance. Other studies express earnings quality as the extent to which a measure is amenable to the monitoring actions of the board. Similarly, Srinidhi, Gul and Tsui (2011) suggest that earnings quality as the measure of the ability of current earnings to predict cash flows and earnings. The authors settle on accrual quality as a suitable metric that best reflects the ability of current earnings to reflect future cash flows. Additionally, Jones, Krishnan and Melendrez (2008) establish that accruals quality is the most suitable measure for incidence and magnitude of fraud relative to other commonly used measures of earnings quality.

6.3.4 Measurement of Firm Performance

Firm performance measures can be broadly classified into market-based firm performance measures and accounting-based performance measures. The former is based mainly on market firm valuation while the latter is based on various accounting estimates.

An array of literature documents various market-based measures of financial performance with literature suggesting that return on assets (ROA), return on equity (ROE) and earnings per share (EPS) being among the ones that are widely used. To start with, Narayan and Dandale (2008) employ asset scaled earnings and industry asset scaled earnings as measures of net earnings in their investigation of EM and performance of Indian equity rights issues. Similarly, Tabassum et al. (2015) rely on return on assets (ROA), return on equity (ROE), earnings per share (EPS) and price-earnings (P/E) ratio as measures of financial performance when investigating the relationship between REM and future performance. Likewise, Loughran and Ritter (1997) employ median operating income relative to sales to proxy operating performance when investigating the operating performance of firms conducting SEO. On the same note, Reddy (2009) measures the operating performance of firms while using pre-tax operating cash flows as a proxy when investigating EM and long-run operating performance of Indian firms. The author argues that operating cash flows are a better measure of operating performance as they represent economic value generated by a firm. Moreover, pre-tax operating cash flows remain unaffected by changes in tax status or capital structure.

With regards to SEOs firm performance, there is a documented preference for market-based measures at the expense of accounting based firm performance measures. Market-based measures are preferred because they reflect market investor preference as opposed to the accounting-based which primarily revolves around prevailing managerial discretion. A handful of studies support this assertion. For instance, Chen, Chou and Lin (2019) and Deshmukh, Gamble and Howe (2017) employ abnormal returns and cumulative abnormal returns when

investigating American SEOs announcement effects and Chinese SEOs market timing practices respectively. Similarly, Du and Shen (2018) examine peer performance and EM and employ peer equity shock, which consists of the mean of idiosyncratic equity returns of the firms under the study. On the same note, Daoping et al. (2010) investigate EM and performance of seasoned private equity placements in Japan and use raw returns, market excess return and abnormal return as proxies for firm performance. Likewise, Yang et al. (2016) and Ching et al. (2006) employ buy and hold abnormal returns and changes in return on assets (ROA) respectively. Seldom, accounting based measures of firm performance are used in the context of SEOs performance with available literature attesting to the same. For example, Leggett et al. (2016) use profitability and cash flows as proxies for subsequent performance when examining the effects of REM and subsequent operating performance.

In summary, the popular measures for SEOs financial performance are earnings before interest and taxes (EBIT), return on assets (ROA), return on equity (ROE), earnings per share (EPS) and net profit margin which all serve as useful proxies for SEOs financial performance. Moreover, PE ratio, Tobin Q, and market value of equity to book value of equity serve as useful proxies for market performance.

6.3.5 Measurement of Information Asymmetry

The present extant literature suggests that the bid-ask spread is a suitable proxy for information asymmetry (Jamalinesari and Soheili, 2015). A large bid-ask spread enables insiders to realize larger margins before the market adjusts the firm's shares. The bid-ask spread is computed from the annualized mean of daily ask spreads scaled by total assets (Samarahan and Imm, 2010). Closing share quotes and prices during trading days relative to the SEO filing date are used.

Also, return volatility is used as a proxy for information asymmetry. For instance, Karpoff et al., (2013) employ return volatility as a constituent measure for information asymmetry measured by the standard deviation of daily share returns over trading days relative to the SEO filing date. High return volatility reflects a noisy information environment and higher levels of information asymmetry. Besides, the authors observe that information asymmetry is positively correlated with the bid-ask spread, return volatility and abnormal accruals. On the other hand, information asymmetry is negatively correlated with firm size, time since IPO issuance, number of analysts, tangible assets and number of prior shares offers a firm has made since going public. Similarly, Dai et al. (2013) rely on the standard deviation between actual return and average return calculated by the difference between actual return and a normal return. The market model estimates these to constitute a proxy for information asymmetry. Additionally, Cormier et al. (2013) rely on price volatility and bid-ask spreads to assess information asymmetry. Therefore, literature, shows that bid-ask spread is a suitable proxy for information asymmetry.

The most common proxies for information asymmetry are the bid-ask to spread and return volatility. Thus, this study, attempts to construct a composite measure for information asymmetry using the variables that are positively and negatively correlated with information asymmetry.

6.4 Hypotheses Testing, Models Specifications and Estimation Techniques

In this section, models for estimating the various vital variables and their estimation techniques are discussed. The main variables which correspond to the various hypothesis are accruals EM (AEM), real EM (REM), short-run SEO performance, long run SEO performance, corporate governance, earnings quality and lastly, information asymmetry.

The data on firm-level variables, EM and financial performance is initially captured and cleaned in Microsoft Excel and later exported to STATA. A cross-check is performed to ensure the

precision of figures. Pooled OLS estimators are carried out using Stata version 15. The main panel data estimation performed is fixed (within) effects, random effects, dynamic panel data estimations, instrument variable and significance test of panel data. Furthermore, panel data is argued to be robust due to its ability to combine cross-sectional and time-series data (Chipeta 2012). In summary, this study will be undertaken through a dynamic panel regression analysis with the generalized method of moments (GMM) to address endogeneity issues, heteroscedasticity, and autocorrelation in regression errors.

6.4.1 Hypothesis One

6.4.1.1 Discussion of Accrued Earnings Management (Discretionary Accruals) Models.

In the absence of a direct method for estimating discretionary accruals (for AEM), existing accruals models are employed in this study. An accrual model serves the role of finding out the expected accrual for a sample firm. The accrual estimated by a model is referred to as non-discretionary accrual (NDCA). It is termed as non-discretionary since it is beyond the scope of management control. Subsequently, a residual accrual is computed from the difference between total accrual and NDCA.

Generally, earnings management (EM) is calculated as the difference between reported earnings and the true value of earnings (Ajit, Malik and Verma, 2013; Kighir, Omar and Mohamed, 2014). The estimation of EM is bifurcated into three main approaches. Firstly, the emphasis is laid on specific accruals, such as the provision of bad debts. Commonly, this approach is used in the banking industry, where much of the EM takes place in the computations of provisions. Secondly, the investigation is performed on the variability and discontinuities on earnings over several periods of observation. Thirdly, EM is detected from the accruals sections of companies' financial reports. Through obtaining the difference between reported earnings and operating cash flows, accounting adjustments are known as accruals are obtained as illustrated in equation (6.10) as follows: -

$$\textit{Total Accruals (TA)} = \textit{Earnings before Interest and Taxes (EBIT)} - \textit{Cash Flow from Operations (CFO)} \tag{6.10}$$

The total accruals (TA) as shown in equation (6.10) is an aggregate of four types of accruals: discretionary current accruals (DCA), non-discretionary current accruals (NDCA), discretionary long term accrual (DLA) and non-discretionary long term accrual (NDLA). The discretionary portion of accruals is the portion susceptible to earnings manipulation, while prevailing business

conditions mainly influence the non-discretionary portion. In this study discretionary accruals (DA) are used as a proxy for EM.

6.4.1.2 Accrued EM Model Specification

The extant literature identifies the modified Jones model as discussed in Dechow et al., (1995) as well as the modified Kothari Jones Model developed by Kothari et al., (2005) as the two most powerful tools for testing EM. The literature available adds weight to this observation (Ajit et al., 2013). Furthermore, various studies were undertaken to test the predictive power of the model for measuring EM rate its testing ability highly. For example, Roodposhti et al., (2012) examine the explanatory power of various models used to predict EM, namely; the Jones, Kazsnic, Kothari Jones and modified Jones Model. The explanatory power of the models in predicting EM stands at 11.5%, 4.2%, 25.2% and 29.1% for the Jones, Kazsnic, Kothari Jones and modified Jones model, respectively. In the same study, when the results were presented as a time series, the modified Jones emerged as the most suitable model with an explanatory power of 29.1%.

Attempts have been made to improve on the classic modified Jones model; however, the results have been mixed (Dechow et al., 2012). Also, other newer approaches are continuously being developed, but they are highly restricted to specific cases and constrained by various assumptions. Ultimately, the modified Jones model thus proves to be robust in detecting EM and has been employed in EM studies. Besides, several more recent studies have employed the modified Jones (1995) model (Ajit et al., 2013; Algharaballi and Albuloushi, 2008; Ardekani et al., 2012; Christensen, Huffman, and Lewis-Western, 2017; Cohen and Zarowin, 2010; Das and Jena, 2016; Islam et al., 2011; Lin, 20114; Silva et al., 2014: Zang 2012).

This study relies on the modified Jones model. The cross-section model for measuring total discretionary accruals is shown in equation (6.11). For each year, a model is estimated based on

the firm industry as guided by the Global Industry Classification Standard (GICS)[27]. This approach is tailored to controls for industry-specific economic conditions affecting the firms in the sample. The calculation for total accruals (TAC) is shown in equation 6.11: -

$$\frac{TAC_{i,j,t}}{A_{i,j,t-1}} = \beta_1\left(\frac{1}{A_{i,j,t-1}}\right) + \beta_2\left(\frac{\Delta SALES_{ijt}}{A_{i,j,t-1}}\right) + \beta_3\left(\frac{PPE_{i,j,t}}{A_{i,j,t-1}}\right) + \varepsilon_{i,j,t} \quad (6.11)$$

Where $\frac{TAC_{i,j,t}}{A_{i,j,t-1}}$ is calculated as the total accruals scaled by total assets for firm *i*, in-country *j*, at time *t*. *TAC* denotes total accruals, symbol *A* represents total assets, Δ*Sales* represents the change in sales or revenues, and *PPE* represents gross property, plant, and equipment, while ε is the error term. TAC is computed as shown in equation (6.12): -

$$TAC_{i,j,t} = EBIT_{i,j,t} - CFO_{i,j,t} \quad (6.12)$$

[27] GICS is an industry taxonomy developed by Morgan Stanley International (MSCI) for use as an industry classification in finance.

Where $TAC_{i,j,t}$ is the total accruals for firm *i* in country *j*, at time *t*. $EBIT_{i,j,t}$ represents earnings before interest and taxes while $CFO_{i,j,t}$ is cash flow from operations which is extracted directly from the statement of cash flows. The estimated parameters in equation (6.12) are used to estimate firm-specific normal accruals ($NA_{i,j,t}$) for our sample firms in equation (6.13): -

$$NA_{i,j,t} = \hat{\beta}_1\left(\frac{1}{A_{ij,t-1}}\right) + \hat{\beta}_2\left(\frac{\Delta SALES_{i,j,t} - \Delta REC_{i,j,t}}{A_{ij,t-1}}\right) + \hat{\beta}_3\left(\frac{PPE_{i,j,t}}{A_{ij,t-1}}\right) + \varepsilon_{i,j,t} \quad (6.13)$$

Where $\Delta Sales$ is adjusted by ΔRec (change in receivables) to consider EM in revenues. The ΔRec is an adjustment to sales inserted to determine revenues-based earnings manipulation (Dechow et al., 1995). Other terms and variables remain the same as those depicted in equation (6.12). The measure of discretionary accruals ($DA_{i,j,t}$) is subsequently estimated as the difference between total accruals and the normal accruals. This is expressed in equation (6.14): -

$$DA_{i,j,t} = \left(\frac{TAC_{i,j,t}}{A_{ij,t-1}}\right) - NA_{i,j,t} \quad (6.14)$$

Initially, normal accruals (*NA*) are computed as per equation (6.13) and are used to calculate *(DA)* in equation (6.14).

6.4.1.3 Estimation Technique for Hypothesis One

Hypothesis one tests the relationship between EM and the firm financial performance of SEOs. To test this hypothesis, firm financial data is required. To estimate EM by discretionary accruals, 11 years of accounting data is obtained from the financial databases and stock exchanges for each firm in the sample across selected African securities markets. The sample consists of SEOs between 2008 and 2018. Financial firms are excluded since the more significant regulations they are subjected to impair their ability to engage in EM compared to other types of firms. The final

sample consists of 501 SEOs and an equal number of non-SEOs. The non-SEOs mirror the SEO sample by size and industry. The modified Jones Model is employed to determine the levels of discretionary accruals (DAs) for SEO and non-SEOs.

Table 6.51: Variables and Source Definitions for Hypothesis One

Variable	Definition	Source
DAs	Discretionary Accruals (AEM Proxy)	Author's Calculations
EBIT	Earnings Before Interest and Taxes	Bloomberg

6.4.2 Hypothesis Two

6.4.2.1 Real Earnings Management (REM) Model Specification

This study takes a leaf from previous research to develop appropriate proxies for real EM activities. For instance, Roychowdhury (2006) employs three metrics to study real activities manipulation, namely; abnormal levels of cash flow from operations (CFO), production costs and discretionary expenses. Similarly, Zang and Zang (2012) examine the following manipulations of real activities; reduction in the cost of goods, inventory overproduction and cutting of discretionary expenditures such as R&D, advertising, selling, general and administrative expenses. Abnormal levels of production costs and discretionary expenditures are used as proxies for inventory overproduction and discretionary expenditure real manipulation. Similar approaches are observed in other studies (See Chan, Chen, Chen and Yu 2014; Cohen and Zarowin, 2010; Gunny, 2010; Li, 2010; Tabassum et al., 2015). Furthermore, Cohen and Zarowin (2010) rely on a model to generate normal levels of cash flow from operations (CFO), discretionary expenses (DISX) and production costs (PROD). Normal levels of cash flow (CFO) is expressed as a linear function of sales and change in sales. This study employs a similar model which is expressed in equation (6.151): -

$$\frac{Ac_CFO_{i,j,t}}{Assets_{ij,t-1}} = \beta_1 \frac{1}{Assets_{ij,t-1}} + \beta_2 \frac{Sales_{i,j,t}}{Assets_{ij,t-1}} + \beta_2 \frac{\Delta Sales_{i,j,t}}{Assets_{\mathrm{ij},t-1}} + \varepsilon_{i,j,t} \quad (6.151)$$

Where Abnormal CFO ($Ab_CFO_{i,j,t}$) is estimated by taking actual CFOs ($Ac_CFO_{i,j,t}$) for firm *i*, in-country *j* and period *t* less the normal levels of CFO for firm *i*, country *j* and period *t* estimated from the coefficients in equation (6.151). The equation for Abnormal CFO (*Ab*_CFO) is illustrated in equation (6.152). Applying (6.151) to selected firms data yields residuals which are taken to be the abnormal CFO. This model is estimated using the cross-sectional regression for each year, industry, and country.

$$Ab_CFO_{i,j,t} = Ac_CFO_{i,j,t} - Normal\ CFO_{i,j,t} \quad (6.152)$$

Production costs are quantified as the sum of the cost of goods sold (COGS) and change in inventory during the year. COGS is modelled as a linear function of the concurrent level of sales as illustrated in equation (6.16): -

$$\frac{COGS_{i,j,t}}{Assets_{ij,t-1}} = \beta_1 \frac{1}{Assets_{ij,t-1}} + \beta_2 \frac{Sales_{i,j,t}}{Assets_{ij,t-1}} + \varepsilon_{i,j,t} \quad (6.16)$$

Where $COGS_{i,j,t}$ represents the cost of goods sold for firm *i*, in country *j* and period *t*. Applying equation (6.16) to selected firms data yields residuals which are taken to be the abnormal production costs ($Ab_PROD_{i,j,t}$).

Inventory growth (INV) is another essential proxy variable for real EM that needs to be measured. *INV* is modelled as a linear function of the concurrent level of sales and the lagged change in sales for firm *i*, in country *j* and period *t* as illustrated in equation (6.17).

$$\frac{\Delta INV_{i,j,t}}{Assets_{ij,t-1}} = \beta_1 \frac{1}{Assets_{ij,t-1}} + \beta_2 \frac{\Delta Sales_{ijt}}{Assets_{ij,t-1}} + \beta_3 \frac{\Delta Sales_{ij,t-1}}{Assets_{ij,t-1}} + \varepsilon_{i.j.t} \quad (6.17)$$

Where (ΔINV) is the change in inventory for firm *i*, in country *j* and time *t*. Following equations (6.16) and (6.17) the normal level of production costs are estimated as in equation (6.18): -

$$\frac{PROD_{i,j,t}}{Assets_{ij,t-1}} = \beta_1 \frac{1}{Assets_{ij,t-1}} + \beta_2 \frac{Sales_{ijt}}{Assets_{ij,t-1}} + \beta_3 \frac{\Delta Sales_{ijt}}{Assets_{ij,t-1}} + \beta_3 \frac{\Delta Sales_{ij,t-1}}{Assets_{ij,t-1}} + \varepsilon_{i.j.t} \quad (6.18)$$

Where $PROD_{i,j,t}$ represents the production cost for firm *i*, in country *j* at time *t*, defined as the sum of COGS and the change in inventories. Applying equation (6.18) to data from selected firms data yields residuals which are taken to be the abnormal production costs ($APROD_{i,j,t}$).

Next, the normal level of discretionary expenses is expressed as a linear function of sales as follows:

$$\frac{DISX_{i,j,t}}{Assets_{ij,t-1}} = \beta_1 \frac{1}{Assets_{ij,t-1}} + \beta_2 \frac{\Delta Sales_{i,j,t}}{Assets_{ij,t-1}} + \beta_3 \frac{Sales_{ij,t-1}}{Assets_{ij,t-1}} + \varepsilon_{i,j,t} \quad (6.19)$$

Where $DISX_{i,j,t}$ represents the discretionary expenditures for firm *i*, country *j* and at time *t* consisting of the sum of advertising expenses, R&D expenses and SG&A. Applying equation (6.19) to the data for selected firms data yields residuals which are taken to be the abnormal discretionary expenditures ($ADISX_{i,j,t}$).

When the discretionary expense is modelled as a function of the current asset, it precipitates a problem if firms manage sales upwards to increase reported earnings in a certain year, resulting in significantly lower residuals from running a regression as specified in equation (6.10) (Cohen and Zarowin, 2010). To mitigate this challenge, discretionary expenses *(DISX)* for firm *i*, country *j* and at time *t* are modelled as a function of lagged sales ($Sales_{ij,t-1}$) and the model used to derive normal levels of discretionary expenses. This is expressed as follows: -

$$\frac{DISX_{i,j,t}}{Assets_{ij,t-1}} = \beta_1 \frac{1}{Assets_{i,j,t-1}} + \beta_2 \frac{Sales_{ij,t-1}}{Assets_{i,j,t-1}} + \varepsilon_{i,j,t} \quad (6.20)$$

The abnormal CFO ($Ab_CFO_{i,j,t}$), abnormal production costs($Ab_PROD_{i,j,t}$) and abnormal discretionary expenses ($Ab_DISX_{i,j,t}$) variables are computed as the difference between the

actual values and the normal levels calculated from equations (6.15), (6.18) and (6.20). In this study, these three variables are employed as proxies for real EM. At stipulated sales levels, firms that manage earnings upwards are likely to have at least one or all the following characteristics: low cash flow from operations, and/or meagre discretionary expenses, and/or unusually high production costs.

To show the total effects of real EM, the three proxies for REM are combined to compute a comprehensive measure for REM activity represented as ($AREAL_{i,j,t)}$. Since these proxies for REM have different effects on the overall score of EM, only the magnitude and not the sign itself is considered (Ibrahim et al., 2011). The total REM is shown in equation 6.21: -

$$AREAL_{i,j,t} = Ab_CFO_{i,j,t} + Ab_PROD_{i,j,t} + Ab_DISX_{i,j,t} \quad (6.21)$$

Where ($AREAL_{i,j,t}$) is the measure for REM, ($Ab_CFO_{i,j,t}$) is the abnormal CFO, ($Ab_PROD_{i,j,t}$) is the abnormal production costs and ($Ab_DISX_{i,j,t}$) represents the abnormal discretionary expenses. Abnormal discretionary accruals *(DAs)* are multiplied by negative one and added to the abnormal production costs to compute the first measure of REM (Cohen and Zarowin 2010). A higher amount is a probable indicator of evidence that the firm is cutting discretionary expenses. Consequently, the higher the amount of this aggregate measure, the higher the likelihood that the firm is engaging in real EM activities. For the second measure, abnormal cash flows from operations and abnormal discretionary expenses are multiplied by negative one. The higher these amounts are, the higher the likelihood that the firm is engaging in sales manipulations and cutting discretionary expenditures to manage earnings upwards (Zhu, Lu, Shan and Zhang, 2015; Kim and Sohn 2013).

6.4.2.2 Estimation Techniques for Hypothesis Two

Hypothesis two presupposes that EM can be fragmented into real earnings management (REM) and accruals earnings management (AEM). It presupposes that both types of EM exist in SEOs. The sample consists of firms that have completed SEO offers over the 2008 to 2017 period. Data is obtained from country stock exchange data as well as various financial databases and data terminals. In line with Cohen and Zarowin (2010), the sample excludes SEO firms lacking annual financial statement data for the years before the SEO filing date, offer year and subsequent year. Combined offers of different classes are excluded.

Table 6.52 Variables and Source Definitions for Hypothesis Two

Variable	Full Name	Source
PROD	Production costs	Author's Calculations
DISX	Discretionary expenditures	Author Calculations

6.4.3 Hypothesis Three

6.4.3.1 The effect of EM on Short Run Performance of SEOs

Where EM has been established in an SEO, an event study is undertaken to determine SEO's short term performance. Expected returns of securities during the SEO issuance window are determined as well. This study relies on the Market Adjusted Return Model and the Mean Adjusted Return Model. In the market-adjusted return model, the expected return of a security on a set date is similar for all securities but differs for other dates. In the mean adjusted return model, the expected return of security *i* is equivalent to a constant which can differ across security (Shahid, Xinping, Mahmood and Usman 2010). The mean adjusted return model is used for testing robustness (Huang, Uschida and Zha 2016; Seetharam and Cunha 2018). Daily abnormal returns for the event in the research window are computed by subtracting the expected return from the expected return as follows in equation (6.30): -

$$AR_{i,j,t} = R_{i,j,t} - \hat{R}_{i,j,t} \tag{6.30}$$

Where $AR_{i,t}$ depicts the abnormal return, $R_{i,t}$ depicts the observed return while $\hat{R}_{i,t}$ is expected return of security *i*, for country *j* on day *t.* In the market model for a security $\hat{R}_{i,j,t}$ is the overall market return of its respective securities exchange. In the mean adjusted return model for each security, $\hat{R}_{i,j,t}$ is the average of its returns in the estimation period. The average daily abnormal return for all events within the research window in equation (6.31) as follows: -

$$\overline{AR_t} = 1/N \sum_{i=1}^{N} AR_{i,t} \tag{6.31}$$

Where $\overline{AR}_t$ represents the average daily abnormal return, *N* is the total number of securities. Cumulative abnormal return (CARs) for each event window period is computed by summing daily abnormal returns as shown in equation (6.32) as follows: -

$$CARs\ (t1 - t2) = \sum_{t=t1}^{t2} AR_{i,t} \tag{6.32}$$

This study relies on an estimation window of 239 days (-250, -11) to consider a financial year preceding the SEO announcement and an event window of 21 days (-10, +10) pre and post the SEO announcement date. The event day (day 0) corresponds with the SEO announcement date.

Consequently, an OLS regression analysis is undertaken to investigate the impact of EM and announcement effects on the shares' short-run performance after an SEO announcement. Equation (6.33) is as follows: -

$$ar_{i,j,t} = \alpha + \beta_1 LogYears_{i,j,t} + \beta_2 DA_{i,j,t} + \beta_3 Qratio_{i,j,1-t} + Controls_{i,j,t} + \varepsilon_{i,j,t} \tag{6.33}$$

Where $ar_{i,j,t}$ represents the abnormal return on share *i* for time *t*, $LogYears_{i,j,t}$ is the log number of years that firm *i* has been listed at time *t* for country *j*, $DA_{i,j,t}$ depicts discretionary accruals. A dummy variable is employed where a variable equal to 1 for income increasing accruals and 0 for income decreasing accruals. $Qratio_{i,j,1-t}$ is a firm's Tobin's Q ratio in the day before announcing the SEO. $IssueSize_{i,t}$ depict the issue size relative to the firm size for firm *i* at time *t*, $Size_{i,t}$ is the size of firm *i* at time *t.* The model controls for firm, industry, and country-level variables. The model includes controls for firm, industry, and country-level factors. Firm-level controls are $CAPEX$ which depicts capital expenditure, MB, which is the market to book value ratio and *LEV*, which represents leverage. *INDUMMY* is an industry dummy controlling for the

SEO firm industry category. Macroeconomic controls are - $IntRate$ representing the prevailing country-specific annualized interest rate and GDP which is the prevailing country-specific real gross domestic product.

6.4.3.2 Firm Performance Model Specification

The primary proxies for SEO issuing firm performance in this study are Return on Assets *(ROA)* and Return on Equity *(ROE)*. Moreover, SEOs performance is measured in terms of Tobin's Q which represents the ratio of market capitalization to the book value of assets for a firm at a given period (Bello et al., 2016). The variable is computed as follows: -

$$\text{Tobin Q} = \frac{\text{Market value of ordinary shares } + \text{ book value of long term debt}}{\text{book value of total assets of the company}} \tag{6.34}$$

Also, to ensure robustness, earnings before interest and tax (EBIT) is also considered. Various studies have pointed out the usefulness of EBIT to firm proxy performance. For example, Hassan (2012) captures (EBIT), which is computed by the ratio of profitability to capital employed to measure for firm performance. Similarly, Cornett, McNutt and Tehranian (2009) observe that *EBIT* is susceptible to manipulation by managers through accruals contained in sales, accounts receivable and the treatment of depreciation and amortization. It is therefore essential to adjust for this risk to obtain the true performance of the firm. The true performance becomes an *EBIT* net of discretionary accruals. Discretionary accruals are estimated using the modified Jones Model.

6.4.3.3 Estimation Techniques for Hypothesis Three

Hypothesis three is formulated to determine the effect of EM on the short term performance of SEOs and its impact on firm performance. Primarily, this hypothesis is tested by determining the

level of AEM in SEOs in the select African securities market. If the level of discretionary accruals is high during the offering period, then this translates to higher levels of EM.

Table 6.53: Variables and Source Definitions for Hypothesis Three

Variable	Full Name	Source	Variable Type
AR (0)	Abnormal returns at Day (0) on the announcement date	Author's Calculations	Dependent
AR (-1, +1)	Abnormal returns at event window (-1, +1) in days. Announcement date is the median day.	Author's Calculations	Dependent
AR (-5, +5)	Abnormal returns at event window (-5, +5) in days. Announcement date is the median day.	Author's Calculations	Dependent
AR (10, +10)	Abnormal returns at event window (-10, +10) in days. Announcement date is the median day.	Author's Calculations	Dependent
DAs	Discretionary Accruals (Proxy for AEM). Computed from the established model.	Author's Calculations	Explanatory
Listing (Years) (LOG_YRS)	Number of years an SEO firm has been listed. Proxied by its log.	Bloomberg	Exogenous
Firm Size (MKTCAP)	Firm size (market capitalization used as a proxy within the event period)	Bloomberg	Exogenous
Issue Size /Firm Size (ISSUE/MKTCAP)	SEO issue size relative to the firm's size represented by market capitalization MKTCAP used as a proxy.	Bloomberg	Endogenous
Leverage (LEV)	Firm leverage ratio at the announcement date	Bloomberg	Exogenous/ Control
Gross Domestic Product (GDP Ratio)	The GDP for the respective country in which the issue took place.	OECD	Exogenous/Control

6.4.4 Hypothesis Four

6.4.4.1 Effect of EM on Long Term Performance of SEO

Based on prior literature, (Autore, Bray and Peterson 2009;Reddy 2009), the long-run performance of SEO is tested using a linear regression model. Firms that have undertaken SEOs are tabulated for each year before the SEO and after the SEO for three years. Similar variables to those in the short run performance are regressed against ROE/ROA as illustrated in equation (6.41) as follows: -

$$ROA_{i,j,t}/ROE_{i,j,t} = \alpha + \beta_1 LogYears_{i,j,} + \beta_2 DA_{i,j,t} + \beta_3 Qratio_{i,j,1-t} + \beta_4 IssueSize_{ij} + \beta_5 Size_{ij,t} + Controls_{i,j,t} + \varepsilon_{i,j,t} \quad (6.41)$$

Where $ROA_{i,j,t}/ROE_{i,j,t}$ depict the return on asset and return on equity respectively for each firm *i*, for country *j* at time *t*. $LogYears_{i,j}$ is the log number of years that firm *i* has been listed in country *j*, $DA_{i,j,t}$ depicts discretionary accruals. A dummy variable is employed where a variable equal to 1 for income increasing accruals and 0 for income decreasing accruals. $Qratio_{i,j,1-t}$ is a firm's Tobin's Q ratio in the year before announcing the SEO. $IssueSize_{i,t}$ depicts the issue size relative to the firm size for firm *i* at time *t*, $Size_{i,t}$ is the size of firm *i*, for firm *j*, at time *t*. The model controls for firm, industry, and country-level variables. To differentiate between the effects of EM on SEO long term financial performance from the effect of EM on short term SEO financial performance, variables in the models are annualized.

6.4.4.2 Estimation Techniques for Hypothesis Four

Hypothesis four is anchored on the presupposition that firm performance of SEOs peaks at around the time of offering, followed by a marked decline during the period after the SEO offer. Past literature attests to this as discussed in previous chapters. Earnings before interest and taxes

(EBIT), return on assets (ROA), return on equity (ROE), earnings per share (EPS) and net profit margin all serve as useful proxies for firm financial performance. PE ratio, Tobin Q, and market value of equity to book value of equity serve as useful proxies for market performance. All these measures can be calculated from firm data for four years after the SEO issuance date.

Table 6.54: Variables and Source Definitions for Hypothesis Four

Variable	Full Name	Source	Variable Type
ROA	Return on Assets	Author's Calculations	Dependent
ROE	Abnormal returns at event window (-1, +1) in days. Announcement date is the median day.	Author's Calculations	Dependent
Tobin Q Ratio (Lag)	Tobin Q ratio (lagged prior year's ratio)	Bloomberg	Exogenous
DA	Discretionary Accruals (Proxy for AEM)	Author's Calculations	Explanatory
DA_DUMMY	Dummy for DA (1 if positive, 0 if negative)	Author's Calculations	Explanatory
Listing (Years) (LOG_YRS)	Number of years an SEO firm has been listed. Proxied by its log.	Bloomberg	Exogenous
Firm Size (MKTCAP)	Firm size (market capitalization used as a proxy within the event period)	Bloomberg	Exogenous
Tobin Q Ratio (Lag)	Tobin Q ratio (lagged prior day's ratio)	Bloomberg	Exogenous
Issue Size /Firm Size (ISSUE/MKTCAP)	SEO issue size relative to the firm's size represented by market capitalization MKTCAP used as a proxy.	Bloomberg	Endogenous
Leverage (LEV)	Firm leverage ratio at the announcement date	Bloomberg	Exogenous/ Control
Gross Domestic Product (GDP Ratio)	The GDP for the respective country in which the issue took place.	OECD	Exogenous/Control

6.4.5 Hypothesis Five

6.4.5.1 Corporate Governance Model Specification

Key corporate governance characteristics include audit committee (*AC*), CEO duality *(CEO)*, and board size (*BDSize*). Firm-specific variables include ROA, firm size, and leverage. In this study, the model employed to show the relationship between corporate governance and EM can be expressed as follows: -

$$EM_{i,j,t} = \beta_0 + \beta_1 PINED_{i,j} + \beta_2 BDSize_{i,j} + \beta_3 CEO_{i,j} + \beta_4 AC_{i,j} + \beta_5 ROA_{i,j,t} + \beta_6 DE_{i,j,t} + \beta_7 BIG3_{i,j} + \beta_8 FSIZE_{i,j,t} + \beta_9 MB_{i,j,t} + +\varepsilon_{i,j,t} \quad (6.51)$$

Where EM captures EM as calculated in equation (6.22). The superscripts *i, j* and *t* represent the firm, country, and time. *PINED* is the proportion of independent non-executive directors in the board of directors, *BDSIZE* is the total number of directors on the board concerning the sample size. The variable is coded as one if the total number of directors on the board is greater than the median value of the sample, zero if otherwise. *CEO* is a dummy variable for *CEO*. It is coded as one if CEO and chairman of the board of directors are the same people and zero if otherwise. *AC* is a dummy variable for the presence of the audit committee. It is coded as one if an audit committee exists and zero otherwise. *ROA* is the ratio of net income before extraordinary items to total assets. *DE* is the ratio of total debt to total assets. *BIG 3* is a dummy variable for the presence of a reputable auditor in the SEO firm. The variable is coded as one if there is a reputable auditor and zero otherwise. *FSIZE* is the natural log of total assets. *MB* is the ratio of the firm's market value of common equity to book value of common equity; ε refers to the residual term.

On the strength of prior literature, it is expected there will be an inverse relationship between EM and selected corporate governance measures in SEOs. The interaction is modelled as follows: -

$$ROA_{i,j,t} = \beta_1 EM_{i,j,t} * \beta_2 PINED_{i,j,t} + Controls_{i,j,t} + \varepsilon_{i,j,t} \quad (6.52)$$

$$ROA_{i,j,t} = \beta_1 EM_{i,j,t} * \beta_2 BDSize_{i,j,t} + Controls_{i,j,t} + \varepsilon_{i,j,t} \quad (6.53)$$

In equation (6.52), *EM* has interacted with *PINED* and the relationship with *ROA* is examined. In this model, it is envisaged that good corporate governance should mitigate EM, thereby increasing the operating performance of SEOs. Thus, a positive coefficient is expected on the interaction term. Likewise, the same relationship is expected in equation (6.53). *ROA* represents the return on the asset as the dependent variable of an SEO, DA is discretionary accruals, and it measures EM. A dummy variable of 1 is used if EM is inferred and 0 if EM is not inferred. The model includes controls for firm, industry, and country-level factors. Firm-level controls are $CAPEX$ which depicts capital expenditure, MB, which is the market to book value ratio and *LEV*, which represents leverage. *INDUMMY* is an industry dummy controlling for the SEO firm industry category. Macroeconomic controls are - $IntRate$ representing the prevailing country-specific annualized interest rate and GDP which is the prevailing country-specific real gross domestic product and ε refers to the error term. In equation (6.53) *EM* has interacted with $BDSize$ and the consequent relationship with *ROA* is examined.

6.4.5.2 Estimation Techniques for Hypothesis Five

Hypothesis five tests the relationship between corporate governance and EM and how the former mitigates against the latter in SEOs in African securities markets. The relationship is tested in by adopting correlational research while expressing the variables of corporate governance against EM in SEOs in select African securities markets. The sample consists of non-financial firms listed on select African securities markets between the years 2008 to 2017. The choice of the firms is motivated by data transparency for the sample firms to be included in the model.

Table 6.55: Variables and Source Definitions for Hypothesis Five

Variable	Full Name	Variable type	Source
DA	Discretionary accruals	Dependent	Author's Calculations
ROA	Return on assets	Independent	Bloomberg
DE	Total debts to total assets	Independent	Bloomberg
BIG3	Presence of reputable directors	Independent	Bloomberg
FSIZE	Natural log of total assets	Independent	Bloomberg
MB	Market value of common equity to book value	Independent	Bloomberg

6.4.6 Hypothesis Six

6.4.6.1 Earnings Quality Model Specification

Primarily, the accrual estimation errors (AEE) model is used as a measure of earnings quality with the Dechow and Dichev, (2002) model proving to be a reliable measure for earnings quality. A similar model has been employed in other prior studies (See Ashbaugh-Skaife, Collins, Kinney and LaFond, 2008; Jones et al., 2008; Lobo, Song, and Stanford 2012; Peng, 2011; Srinidhi et al., 2011). The model showing the relationship is current accruals *(CAC)* and various predictor variables for firm *i*, country *j* and for time *t* is expressed as follows: -

$$CAC_{i,j,t} = \beta_0 + \beta_1 CF_{i,j,t-1} + \beta_2 CF_{i,j,t} + \beta_3 CF_{ij,t+1} + \beta_4 \Delta SALES_{i,j,t} + \beta_5 PPE_{i,j,t} + Controls + \varepsilon_{i,j,t} \quad (6.61)$$

Where *CAC* denotes current accruals, *CF* is operating cash flows, Δ*SALES* depicts changes in sales revenue, *PPE* represents gross property, plant, and equipment while ε represents the error term. All variables are scaled by beginning assets' total assets and to reduce the effects of extreme observations, variables at the top and bottom 1% of the distribution are winsorized (Peng, 2011). It is important to use the statement of cash flow approach to measuring accrual quality rather than the balance sheet approach to avoid measurement error in estimating current accruals (Hribar and Collins, 2002). For instance, McNichols (2000) argues that the inclusion of Δ*SALES* and *PPE* in equation (6.25) increases the predictive power of the model, which is denoted by R^2. The model includes controls for firm, industry, and country-level factors. Firm-level controls are $CAPEX$ which depicts capital expenditure, MB which is the market to book value ratio and *LEV* which represents leverage. *INDUMMY* is industry dummy controlling for SEO firm industry category. Macroeconomic controls are: $IntRate$ representing the prevailing country specific annualized interest rate and GDP which is the prevailing country specific real gross domestic product.

6.4.6.2 Estimation Techniques for Hypothesis Six

Hypothesis six relates the influence that EM plays over earnings quality in SEOs with the proxy accruals quality being used as the proxy for earnings quality. The time duration under observation is 8 years (2008 to 2017). Separate coefficients for each industry are estimated each year. These estimates measure accruals quality for each firm in the same industry as well as accounting for differences in the operating environment across industries. Average total assets deflate all terms in the equation. Extreme values outliers are winsorized to the 1st and 99th percentiles (Lobo et al., 2012). The sample to be picked for fulfilling this objective is restricted to firms with complete data sets for cash flows from operations, earnings, assets, changes in inventory and changes in accounts receivable (Dechow and Dichev, 2002).

Table 6.56: Variables and Source Definitions for Hypothesis VI

Variable	Full Name	Variable Type	Source
CAC	Current accruals	Dependent	Author's Calculations
NI	Net income	Independent	Author's Calculations
MB	Market value of common equity to book value	Independent	Bloomberg

6.4.7 Hypothesis Seven

6.4.7.1 Information Asymmetry Model Specification

The studies on information asymmetry have relied on the bid-ask spread scaled by security prices as the proxy for information asymmetry (Karpoff et al., 2013). The Bid-ask spread *(ABS)* is the differential between the prices a dealer is willing to sell a security and the price he is willing to buy a security. The spread is calculated from the trading day closing quotes and prices relative to the SEO filing date (Karpoff et al., 2013). Following Samarahan and Imm (2010), the average value of annual bid-ask spread (ABS) is measured as follows:-

$$ABS_{i,j,t} = \frac{(Ask - Bid)_{i,j,t}}{\left[\frac{(Ask + Bid)}{2}\right]_{i,j,t}} \tag{6.71}$$

Equation (6.71) illustrates the computation of the average *(ABS)* for firm *i* and country *j* for time *t.* Following Chowdhury et al. (2018), the regression model (6.28) is used to test the effect of information asymmetry on EM in SEOs. A similar approach to test the relationship between *DA* and *ABS* is employed in previous studies (See Chowdhury et al., 2018; Jamalinesari and Soheili, 2015; Karpoff et al., 2013; Salehi et al., 2014). To establish the effect of *ABS* on *DA*, a regression model is employed as shown in equation (6.72) as follows: -

$$DA_{i,j,t} = \beta_0 + \beta_1 ABS_{i,j,t} + Controls_{i,j,t} + \varepsilon_{i,j,t} \tag{6.72}$$

Where *DA* denotes discretionary accruals for firm *i* and country *j* and for time *t* while ABS represents the bid-ask spread, the equation (6.72) controls for the firm, industry, and country-specific factors. Firm-level controls are $CAPEX$ which depicts capital expenditure, MB, which is the market to book value ratio and *LEV,* which represents leverage. *INDUMMY* is an industry dummy controlling for the SEO firm industry category. Macroeconomic controls are: - $IntRate$

representing the prevailing country-specific annualized interest rate and GDP which is the prevailing country-specific real gross domestic product.

To ensure measurement is more robust, this study employs analyst coverage as an additional proxy for information asymmetry. Available literature attests to the importance of analyst coverage as a useful proxy for information asymmetry. For example, Degeorge et al., (2013) analyse the effect of analyst coverage, EM and financial development in an international context. The study envisages that information asymmetry will be lower in firms with high analyst coverage and vice versa. A control variable, financial development (FD) index, is employed because the level of financial development in a country influences the ability of analyst coverage to mitigate EM. The empirical evidence suggests that financial analysts' effectiveness increases with the extent to which a country is financially developed. The authors use the following model which is similarly adopted for this study: -

$$DA_{i,j,t} = \beta_0 + \beta_1 Analyst\ Coverage_{i,j,t} + \beta_2 Analyst\ Coverage_{i,j,t} * FD_{i,j,t} + \beta_3 Controls_{i,j,t} + \varepsilon_{i,j,t} \quad (6.73)$$

Where *DA* denotes the absolute value of short term discretionary accruals, analyst coverage represents the number of analysts analysing a firm, *FD* is the financial development index variable. *Analyst coverage*FD* denotes an interaction variable between analyst coverage and financial development. If a country simultaneously has a lower FD index and a larger number of analysts examining its firm shares, the country's information asymmetry level will be lower and vice versa. The model includes controls for firm, industry, and country-level factors. Firm-level controls are $CAPEX$ which depicts capital expenditure, MB, which is the market to book value ratio and *LEV*, which represents leverage. *INDUMMY* is an industry dummy controlling for the SEO firm industry category. Macroeconomic controls are - $IntRate$ representing the prevailing

country-specific annualized interest rate and GDP which is the prevailing country-specific real gross domestic product while ε refers to the error term. A similar methodology is also employed in related studies (Chan and Chan, 2014; Lobo et al., 2012; Yu, 2008).

6.4.7.2 Estimation Techniques for Hypothesis Seven

Hypothesis seven tests the relationship between information asymmetry and EM of SEO in African securities markets. This study estimates equations using data obtained from African securities markets. The time duration under observation is 8 years (2009 to 2017).

Table 6.57: Variables and Source Definitions for Hypothesis VII

Variable	Full Name	Variable type	Source
ABS	Bid-ask spread	Independent	Bloomberg
DA	Discretionary accruals	Dependent	Bloomberg
SIZE	Log of the market value of equity	Independent	Bloomberg
BM	Book to market ratio	Independent	Bloomberg
PE	Price-earnings ratio	Independent	Bloomberg
FD	Financial Sector Development (FD) index	Control	OECD

6.6 Dynamic Panel Data Specifications and Tests for Hypotheses

Panel data is also referred to as longitudinal data. Generally, it contains time-series observations of several observable firms. Typically, observations involve at least two dimensions. The first is a cross-sectional dimension indicated by subscript *i* and a time series dimension indicated by subscript *t* (Hsiao, 2007). The third dimension for the country is added and denoted by subscript *j*.

Literature documents that panel data is superior to pure time-series and cross-sectional data. The data takes heterogeneity into account by allowing for firm SEO data. Also, panel data is more informative, diverse and possess lower levels of collinearity between variables. Besides, the data

allows more degrees of freedom by combining cross-sectional and time-series observations and also minimizes bias when using large volumes of data (Arellano, 2010).

In this study, cleaned data is arranged and fitted into a panel. The panel data includes observation of SEOs over a specific period. Following panel data estimation, *N* represents the panel members consisting of SEO issuing firm observations while *T* represents the period. For this study, the *T* value is less than *25* observations, and the *N* value is greater than *25* observations. Moreover, it is envisaged that endogeneity between some of the model variables exists and to mitigate this, the GMM estimation technique is employed as illustrated by Arellano (2010). The GMM approach is an estimation technique that relies on instrumental variables. The richer set of instruments makes it more robust (Verbeek, 2008). The model is particularly suitable in utilizing variables that contained their original and lagged version. On the other hand, if the panel data observations fit the following criteria, *T* value is less than *25* observations and *N* value is less than *25* observations, then the pooled ordinary least squares (OLS), fixed effects (FE) and random effects (FE), estimation techniques are employed. Furthermore, system GMM is adopted in this study because the endogenous variables under consideration in the models state previously are persistent and follow a random walk. Additionally, EM which is the dependent variable is assumed to exhibit a joint mean stationarity.

6.6.1 Test for Heteroscedasticity

In this study, an estimation technique such as the ordinary least squares (OLS) which is employed should have a set of desirable properties for it to be used. One of the main assumptions underlying the OLS is that the variance of errors remains constant over time. Heteroscedasticity occurs when the variability of a variable is unequal across the range of values of a second variable that predicts it or if the errors do not have constant variance (Brooks, 2008). In this study, heteroscedasticity is resolved by deflating the model equations with lagged assets and the inclusion of an intercept deflation aids in controlling for firms with different sizes and scales. Prior studies show that the

inclusion of an intercept yields higher symmetry around zero discretionary accruals (Braam, Nandy, Weitzel and Lodh 2015; Du and Shen, 2018; Duellman, Ahmed and Abdel-Meguid, 2013). Additional measures to mitigate heteroscedasticity such as transforming the variables into logs and employing heteroscedastic consistent standard error of estimates are employed (Brooks 2008).

6.6.2 Test for Lack of First and Second-Order Autocorrelation

The model adequacy of an OLS is examined by checking the presence of autocorrelation in the regression residuals. It is important to identify autocorrelation because its presence contravenes the OLS assumption that error terms remain uncorrelated. Ignoring heteroscedasticity, ignoring autocorrelation raises the possibility of wrong inferences about the variables under study. In practice, autocorrelation is detected by relying on the Durbin -Watson formal statistical test which tests the first-order autocorrelation. The first-order autocorrelation involves checking for a relationship between an error and its lagged version. In cases where the OLS is used, the Durbin -Watson formal statistical test will be used to test for the first-order autocorrelation.

6.6.3 Hausman Test for Endogeneity

A variable is interpreted to be endogenous within a model if its value is influenced by at least one of the independent variables in the same model. Endogeneity occurs when a two-way relationship exists between two or more variables. On the other hand, exogenous variables are those which are independent and not influenced by other variables in the model. The Hausman specification test detects endogenous variables in an OLS model. Endogeneity contravenes the underlying OLS assumption that there should be zero correlation between an independent variable and the error term. The procedure for determining endogeneity is carried out using the Durbin-Wu-Hausman (DWH) test. This test is also carried out in the study where the OLS model has been used for estimation.

6.6.4 Over-identifying Restriction Test/Sargan Test

The Sargan test is carried out on possible over-identifying restrictions inherently implied by an overidentified model. A model's over-identification occurs when instruments used exceed endogenous regressors. Moreover, the test is used in GMM to evaluate whether the instruments in the model correctly predict movement in the dependent variable. The rule of the thumb is a model is correctly identified and the instrument variables estimators are consistent if the *F value* bigger than 10. In other words, the model specification solves the problem of weak instruments (Verbeek, 2008).

6.6.5 Multicollinearity Test

Multicollinearity is said to exist whenever at least two of the predictors in regression are to a considerable degree correlated. Also, it can be termed as a state of high inter-correlation between the independent variables. Multicollinearity sometimes manifests itself because predictor variables to an extent are possibly out of researchers' control. Besides, it can be caused by the inclusion of a dummy variable which is calculated from other variables in the data set as well as the repetition of a variable. Measures such as increasing the sample size, factor analysis and use of joint hypothesis tests are employed to mitigate against multicollinearity. Additionally, knowing it exists in results ensures that inferences are correctly made (Verbeek, 2008).

6.7 Chapter Summary

This chapter has dwelt on a choice of data as well as models to be applied in analysing the gathered data in the quest to fulfilling the objectives outlined in the hypothesis development. Panel data is relied on because it combines a wide array of firms for a specified period. In this study, the models used are backed by prior studies in which they have been applied successfully. Further, independent, dependent and control variables have also been identified in the study to

shed light on their interrelationship. After data is collected and analysed, various formal tests of specification for dynamic panel data are carried out to ensure models' results are consistent with expected findings. The next chapter discusses the results.

CHAPTER SEVEN
EMPIRICAL RESULTS

7.0 Chapter Introduction

The previous chapter expounded on various econometric approaches to address the research objectives. This chapter reports the results generated by the estimated models. The primary goal of this chapter is to report and discuss the results per the objectives of the study. This chapter is arranged in terms of each of the hypothesis as outlined in the research objectives.

7.1 Results Presentation and Discussion for Hypothesis One

7.1.2 Hypothesis One Restatement

Hypothesis one seeks to examine the extent of EM in SEOs relative to non-SEOs. Hypothesis one is subsequently restated as follows.

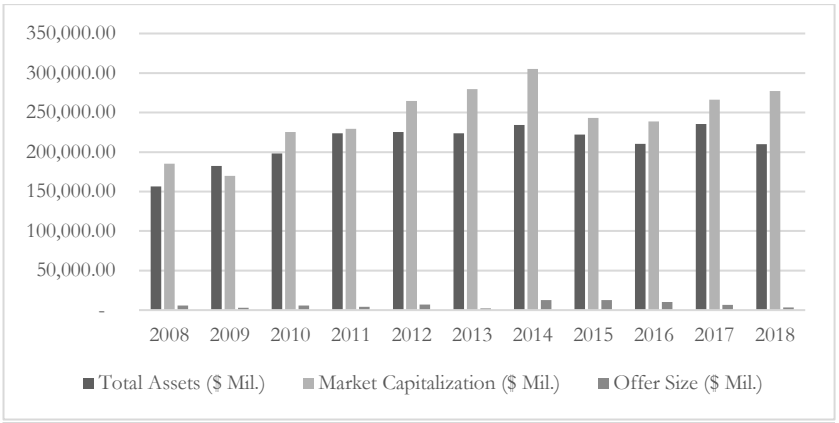
$H_0 =$ *SEOs do not experience statistically significant levels of EM compared to non-SEOs in select African securities markets.*

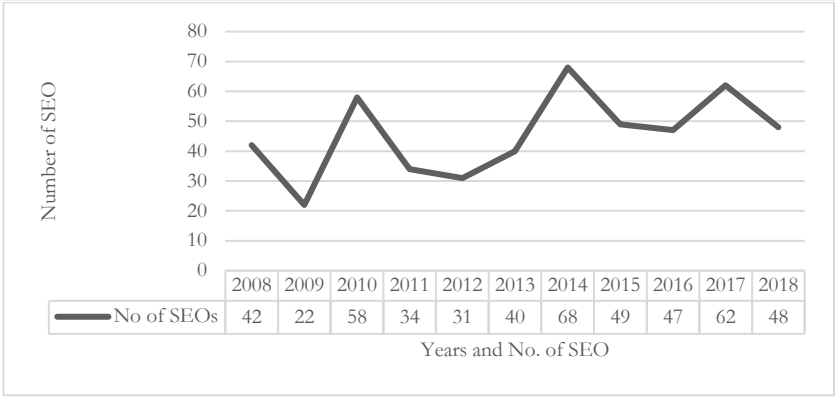
H_α = *SEOs experience statistically significant levels of EM compared to non-SEOs in select African securities markets.*

7.1.3 Descriptive Statistics

Various markets across Africa have recorded sizable SEO offerings for the duration between the years 2008 and 2018. This section represents an overview of SEOs firms characteristics.

Figure 7.11: Size, Number and Frequency of SEOs





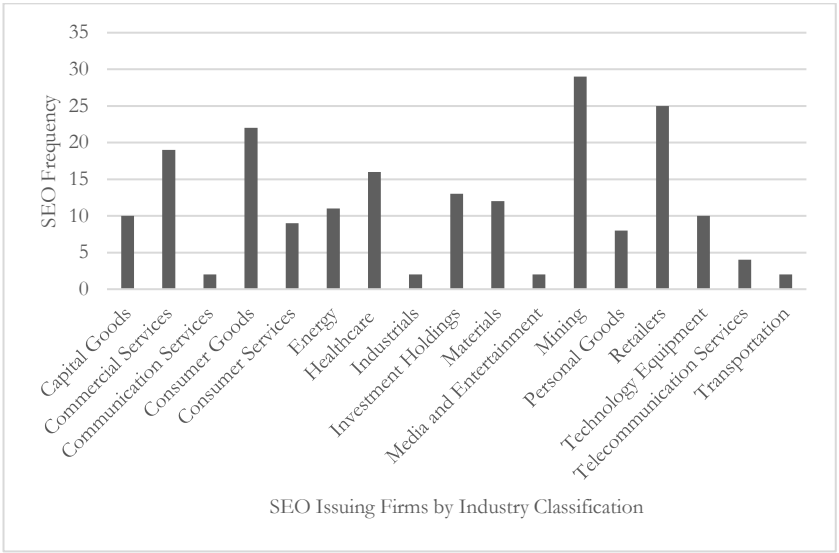
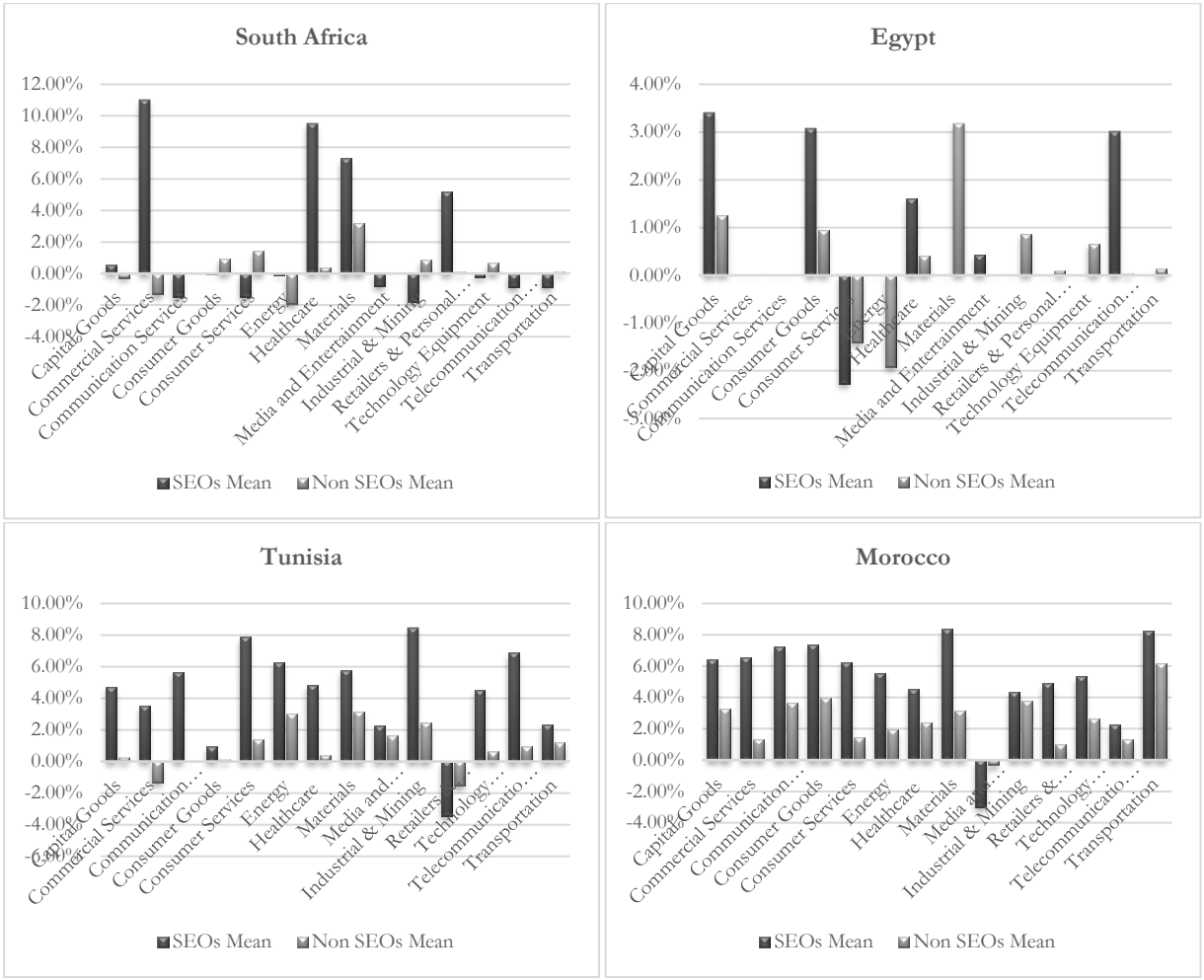


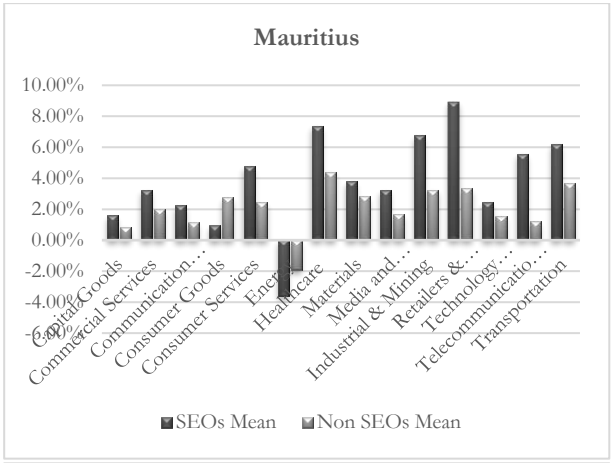
Figure 7.11 presents a summary of SEO firm size characteristics in terms of total assets, market capitalization and offer size, the number of SEOs issued during the duration under study and the frequency of SEOs issued as per industry classification. The SEOs firm size characteristics are for 11 years between the years 2008 and 2018 for nine securities markets in Africa. These countries are South Africa, Egypt, Tunisia, Mauritius, Morocco, Nigeria, Ghana, Kenya, Zambia, and Zimbabwe. The year 2008 recorded the lowest level of activity with total assets (TA), market capitalization (MKTCAP) and offer size (OFFSIZE) of 157M, 185M and 6M respectively (all in USD). On the other hand, the year 2014 recorded the highest level of activity with total assets (TA), market capitalization (MKTCAP) and offer size (OFFSIZE) standing at 234M, 304M and 13M, respectively. The remarkable increase in total assets and market capitalization across the years under observation show that SEOs are generally growing with a growing appetite for equity to finance their growth.

There are approximately 501 SEOs between the years 2008 and 2018 in selected African securities markets. This sample excludes utilities and financial institutions firms such as banks, REITs, and investment companies. Also, it excludes firms without any observations during the entire period due to delisting. SEOs that have engaged in a merger or acquisition between 2008 and 2018 have been excluded in the sample with the exclusion considering any issues prior and after the merger or takeover within 60 days before and after the SEO. Besides, the number of SEOs issued has grown gradually reaching a peak of 68 SEO firms across all the markets. The trend shows observable growth in the number of SEO issued in African securities markets.

The SEOs are categorized by industry. Many of the SEOs fall in the commercial services, consumer goods, manufacturing, and retail industries. Newer and emerging industries such as telecommunication services, personal goods, industrials, and media have recorded fewer issues during the period. To better address, the hypothesis, the mean DAs of SEOs have contrasted with DAs of non-SEOs and the relationship is illustrated as shown in Figure 7.12.

Figure 7.12: SEO v Non-SEOs DAs for Selected Countries

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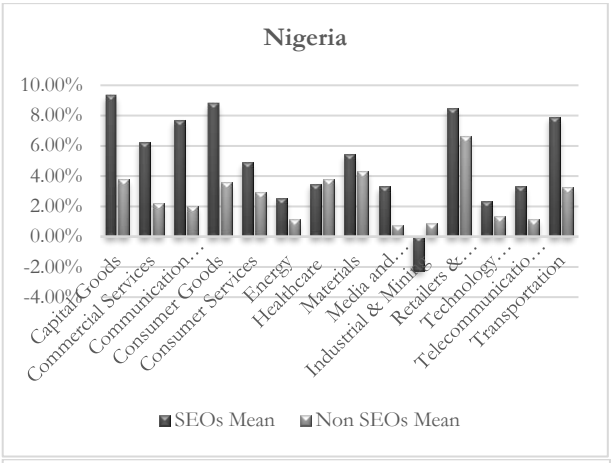
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Telecommunicatio…
Transportation
SEOs Mean
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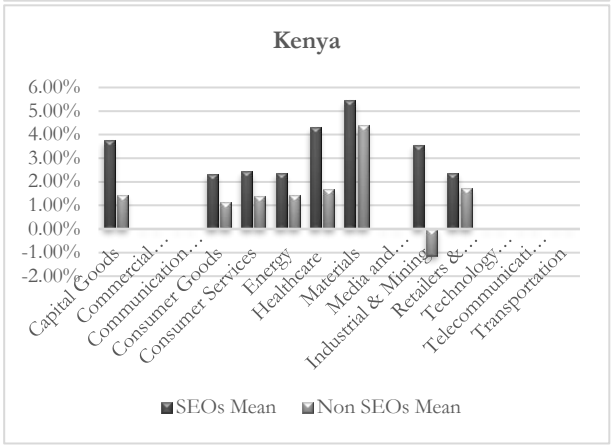
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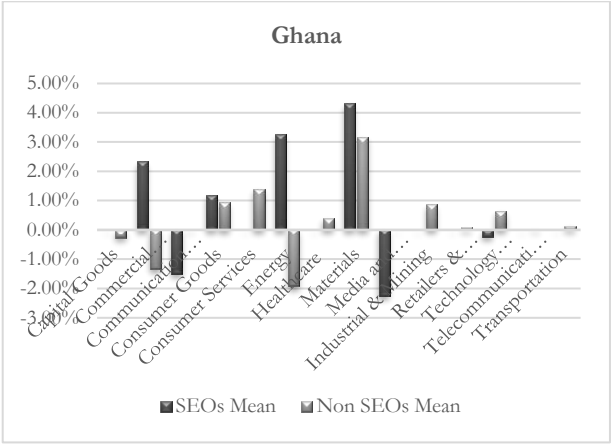
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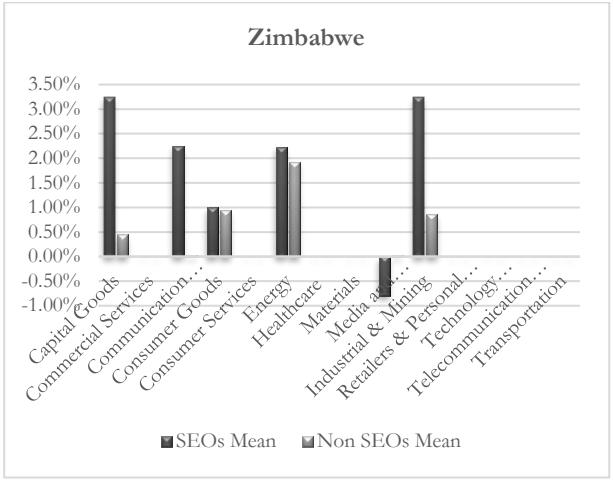
Transportation
SEOs Mean
Non SEOs Mean


Zimbabwe
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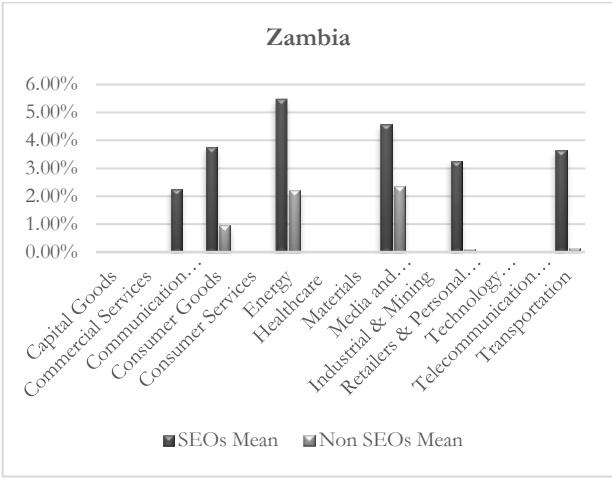
Capital Goods
Commercial Services
Communication…
Consumer Goods
Consumer Services
Energy
Healthcare
Materials
Media and…
Industrial & Mining
Retailers & Personal…
Technology…
Telecommunication…
Transportation
SEOs Mean
Non SEOs Mean


Zambia
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Capital Goods
Commercial Services
Communication…
Consumer Goods
Consumer Services
Energy
Healthcare
Materials
Media and…
Industrial & Mining
Retailers & Personal…
Technology…
Telecommunication…
Transportation
SEOs Mean
Non SEOs Mean

The firms are grouped according to the leading industry classifications. Commercial, healthcare, materials and retailing firms report the highest levels of DAs compared to similar non-SEOs in the same industry. On average, the mean DAs for SEOs is higher and more volatile compared to those of non-SEOs. From Figure 7.12, it is apparent, on face value, that the mean value of DAs for SEOs is on average higher, and it fluctuates more compared to that of non-SEOs. In the same Figure, if the bar is above zero, DA is income increasing resulting to higher levels of EM and if the bar is below zero, DAs are income decreasing, resulting to lower levels of EM. South Africa, Egypt and Mauritius have the highest number of firms while Ghana, Zimbabwe and Zambia have the least. Income increasing EM in SEOs (positive more shaded bars) are on average higher than the accruals for non-SEOs (positive light shaded bars) in all the countries. Income decreasing EM (negative darker bars) are fewer and far between showing that on average SEOs are engaging in income increasing EM. Moreover, it is observable that EM is on average higher in capital intensive industries such as capital goods, consumer goods, materials, telecommunication, and transport while remaining lower for the other industrial classifications. South Africa and Egypt report the highest variability in EM with Nigeria, Mauritius and Nigeria reporting the least. Kenya, Ghana, Zimbabwe, and Zambia did not issue SEOs for all the industry categories.

7.1.4 Inferential Statistics

To test the hypothesis on the presence and extent of AEM in SEOs in African securities markets, abnormal accruals are derived using the Jones model. Findings show that AEM can either be positive (income increasing accruals indicated by a positive sign) or negative (income decreasing accruals indicated by a negative sign). In this study, positive residuals indicate income increasing manipulation while negative residuals suggest deflated reported earnings possibly as a result of earning restatements as explained by He, Ng, Zaiats and Zhang (2017).

Table 7.11 summarizes the overall mean, standard deviation, and t statistics for DA (proxy for AEM) values of SEOs and non-SEOs in several selected African securities markets. The observations are classified according to the industry the firm belongs to as illustrated in Figure 7.11. While the number of firms per country is varying, the main industry classifications are *14* in total for all the countries. In an ideal case where firms do not engage in EM, the mean value for DAs would be zero; therefore, the null hypothesis assumes the mean DA is equal to zero and the alternate hypothesis otherwise.

Table 7.11: Independent T-Test Results (Selected Markets)

Independent t-test across Countries						
	Country					
	South Africa			Egypt		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.
Mean of SEO Firms	87	0.018	0.044	61	0.004	0.021
Mean of non-SEO Firms	87	0.003	0.012	61	0.003	0.012
Diff.	87	0.015	-0.011	61	0.001	0.019
mean(diff)	t = 1.2639			t = 0.2749		
Ha: two tailed p value	Pr(|T| > |t|) = 0.2285			Pr(|T| > |t|) = 0.7877		
	Tunisia			**Morocco**		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.
Mean of SEO Firms	44	0.043	0.031	14	0.053	0.029
Mean of non-SEO Firms	44	0.009	0.014	14	0.025	0.016
Diff.	44	0.034	0.025	14	0.028	0.021
mean(diff)	t = 5.1727			t = 4.8923		
Ha: two tailed p value	Pr(|T| > |t|) = 0.0002			Pr(|T| > |t|) = 0.0003		
	Mauritius			**Nigeria**		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.
Mean of SEO Firms	10	0.038	0.032	27	0.051	0.032
Mean of non-SEO Firms	10	0.021	0.016	27	0.027	0.017
Diff.	10	0.017	0.02	27	0.024	0.046
mean(diff)	t = 3.1957			t = 3.6406		
Ha: two tailed p value	Pr(|T| > |t|) = 0.0070			Pr(|T| > |t|) = 0.0030		
	Kenya			**Ghana**		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.
Mean of SEO Firms	7	0.012	0.019	5	0.005	0.018
Mean of non-SEO Firms	7	0.007	0.012	5	0.003	0.012
Diff.	7	0.005	0.008	5	0.002	0.02

mean(diff)	t = 2.3178	t = 1.2639
Ha: two tailed p value	Pr(|T| > |t|) = 0.0374	Pr(|T| > |t|) = 0.7053

On average, the mean DAs for SEOs differs from that of non-SEOs across the industries. Analysing the data using a *t*-test shows a variety of results. The *t* statistic for South Africa and Egypt is *1.2639* and *0.2749,* respectively at *13* degrees of freedom. On the one hand, conducting a two-tailed t-test for both countries yields *p* values for South Africa and Egypt as *0.2285* and *0.7877,* respectively. These *p* values are larger than the pre-specified alpha level, which stands at *5%* level of significance. For these two markets, we fail to reject the null hypothesis and conclude the mean of SEOs and non-SEOs firm is not statistically significant or less than zero. A similar interpretation can be extended to Ghana. In summary, South Africa and Egyptian securities markets are older, more efficient, more liquid and less information asymmetric. These characteristics work together to reduce incidences of EM in these markets.

On the other hand, the results for Tunisia, Morocco, Kenya, Mauritius, and Nigeria are different. For these countries, the *p* values are lower than the alpha value at the 5% level of significance. We can conclude, therefore, that the mean DA is statistically significant or greater than zero. Therefore, the null hypothesis is rejected in favour of the alternative at the *5%* level of significance. It is arguable that on average, the mean DAs for SEOs is higher than similar size-adjusted non-SEOs at both the firm and industry level.

These results support the hypothesis that SEOs engage in EM more than non-SEOs. What differs is the magnitude, extent and statistical significance which varies across different countries, industries as well as specific firms. From the results, we can reject the null hypothesis, which states that SEO firms do not experience statistically significant levels of EM compared to non-SEOs for all the countries examined. Results for Tunisia, Morocco, Mauritius, and Nigeria are statistically significant and insignificant for the rest of the countries. This finding does not rule

out the presence of EM in the rest of the countries; instead, it is a measure of the extent of EM which varies across all the countries. Consistent with Caton et al. (2011), results in this study suggests that firms tend to window dress their financials before significant events such as SEO to make them appealing to investors. The extent of EM differs across countries depending on other variables such as analyst coverage, level of information asymmetry and corporate governance. Similarly, Wang and Hagigi (2019) also establish a more explicit link between income increasing EM and SEO. They argue that the need for subsequent SEO issues influences the likelihood of a firm engaging in EM.

7.1.5 Results Summary

This hypothesis sought to examine the extent of EM in SEOs African securities markets. Findings suggest the extent of EM is more considerable in Tunisia, Morocco, Mauritius, and Nigeria and lower in South Africa, Egypt, Kenya, and Ghana. This finding is exploratory, and it forms the basis for a further and more in-depth study on EM concerning the decomposition of EM into AEM and REM, the effect of EM on short-run and long-run firm performance, the effect of corporate governance on EM, the effect of EM on earnings quality on EM as well as the effect of information asymmetry on EM. These issues are addressed in the subsequent hypothesises.

7.2 Results Presentation and Discussion for Hypothesis Two

This section seeks to provide a detailed analysis of the results for the stated hypothesis, which is anchored on the theory that, overall, EM can be fragmented into accrued earnings management (AEM) and real earnings management (REM).

7.2.1 Hypothesis Two Restatement

Hypothesis two seeks to address some of the pertinent issues surrounding EM. The question is whether managers rely on AEM, REM or both when they engage in EM. Between the two forms of EM, which one is more pervasive? Subsequently, the hypothesis is subsequently restated as follows:

$H_0 =$ *There is no statistically significant relationship between REM and AEM in SEOs in select African securities markets.*

H_α *= There is a statistically significant relationship between REM and AEM in SEOs in Select African securities markets.*

7.2.2 Descriptive Statistics

This section reports the available data on AEM and REM for six selected markets in six different countries in Africa. The summary descriptive statistics are reported in Table 7.21 showing the proxy measures of (DAs) and abnormal cash flow (Ab CFO) respectively.

Table 7.21: Summary of AEM and REM Measures

			Years						
Country	**EM**	**Measures**	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
South Africa	AEM (DA)	Mean	0.028	0.017	-0.003	-0.034	-0.023	0.029	0.022
		Std. Dev.	0.057	0.117	0.187	0.057	0.070	0.067	0.077
	REM (Ab CFO)	Mean	0.069	0.073	-0.088	0.097	0.109	0.076	0.049
		Std. Dev.	0.255	0.260	0.284	0.297	0.312	0.266	0.215
		Obs.	360	360	360	360	360	360	360
Egypt	AEM (DA)	Mean	-0.013	-0.011	0.034	-0.012	-0.004	-0.011	0.021
		Std. Dev.	0.181	0.146	0.141	0.131	0.141	0.149	0.117
		Obs.	200	200	200	200	200	200	200
	REM (Ab CFO)	Mean	0.036	0.062	-0.103	0.086	-0.071	0.076	0.056
		Std. Dev.	0.187	0.242	0.304	0.282	0.258	0.265	0.230
		Obs.	195	193	195	197	196	198	197
Tunisia	AEM (DA)	Mean	0.006	0.063	0.003	-0.003	0.047	0.016	0.017
		Std. Dev.	0.088	0.088	0.086	0.086	0.086	0.046	0.044
	REM (Ab CFO)	Mean	0.062	0.092	-0.069	0.084	0.077	0.064	0.024
		Std. Dev.	0.242	0.290	0.255	0.278	0.268	0.246	0.155
		Obs.	123	123	123	123	123	123	123
Morocco	AEM (DA)	Mean	0.038	0.022	-0.036	0.055	-0.104	-0.063	0.005
		Std. Dev.	0.051	0.051	0.051	0.049	0.051	0.051	0.051
	REM (Ab CFO)	Mean	0.051	0.081	0.063	0.065	0.063	0.095	0.082
		Std. Dev.	0.222	0.275	0.246	0.248	0.246	0.296	0.277
		Obs.	61	61	61	61	61	61	61
Mauritius	AEM (DA)	Mean	0.047	0.060	0.043	0.053	0.003	0.023	0.097
		Std. Dev.	0.094	0.013	0.116	0.109	0.116	0.116	0.144
	REM (Ab CFO)	Mean	0.057	0.046	-0.068	0.091	0.058	0.071	0.036
		Std. Dev.	0.234	0.211	0.254	0.289	0.058	0.258	0.188
		Obs.	83	83	83	83	83	83	83
Nigeria	AEM (DA)	Mean	0.038	0.015	-0.021	0.035	-0.034	0.052	0.055
		Std. Dev.	0.010	0.102	0.011	0.103	0.011	0.095	0.104
	REM (Ab CFO)	Mean	0.069	0.098	-0.118	0.127	0.061	0.041	0.040
		Std. Dev.	0.254	0.299	-0.324	0.335	0.240	0.199	0.198
		Obs.	99	99	99	99	99	99	99

The mean values for (DAs) and (Ab CFO) are reported for three years before the SEO and three years after with the year of the SEO issuance being zero. AEM ranges from a low of negative 3.4% to a high of 2.8% while the mean REM measure ranges from a low of negative 8.8% to a high of 7.6% of the total assets in South Africa. A similar variation with a narrower range is observed in the rest of the countries. On average, the mean of both AEM and REM measures is positive before the SEO issuance date. Furthermore, several measures are negative in the year of

the issuance and the period immediately after the SEO issuance before changing and becoming positive again a year or two post SEO issuance. The positive measures for AEM and REM are proxies for income increasing EM while the negative ones denote income decreasing EM. In the study, the same pattern emanates from the other countries sampled in the study.

The correlation will aid in drawing more information on the association between DA and REM in selected African select markets. Pearson's correlation coefficients between DA and REM are reported in Table 7.22.

Table 7.22: AEM and REM Correlation

		EM Measures	
		DA	**REM**
South Africa	DA	1	
	REM	0.684*	1
Egypt	DA	1	
	REM	0.435*	1
Tunisia	DA	1	
	REM	0.639*	1
Morocco	DA	1	
	REM	0.358*	1
Mauritius	DA	1	
	REM	0.760*	1
Nigeria	DA	1	
	REM	0.736*	1

The coefficients are positive and significant at a 5% level of significance. Except for Egypt and Morocco, the other coefficients between DA and REM are strongly positive, providing credible evidence that DA and REM are complementary. Consequently, there is a strong likelihood that the AEM and REM of SEOs move in the same direction. Also, Spearman's correlation is computed for robustness, and it yields the same results. It is essential to point out that these coefficients are only for the year of the SEO issuance. These observations contradict those in Cohen and Zarowin (2010) who establish a negative correlation between abnormal cash flow (measure for REM) and DA. However, it is noteworthy that in the same study, another measure

for REM (production costs) is positively correlated with DA. The CFO used in this measure has not disentangled the effects of production costs and discretionary expenses and this could be a contributing factor to the positive correlation between DA and REM. Evidence in other studies examining the relationship between REM and AEM is mixed. For instance, Gao et al. (2017) posit that firms can engage in AEM and REM jointly where the relative costs of the two strategies are low. On the other hand, Zang (2012) argues that there is a trade-off between the two EM measures. Employing one measure of EM (AEM) means precluding the other (REM) and vice versa.

Conversely, the positive correlation suggests that managers of SEOs engage in both REM and AEM as a multi-pronged approach for EM. A similar finding in Zhu et al. (2015) lends credence to these observations in Table 7.22. In the study, the authors establish that Chinese reverse mergers firms engage in both AEM and REM in the year of the reverse merger.

7.2.3 Inferential Statistics

Table 7.23 summarizes the overall mean, standard deviation, and *t* statistics for several firm observations in six selected African securities markets. The information is reported in the Table as follows.

Table 7.23: Test of AEM and REM Means in Selected Countries

Independent t-test across Countries						
	South Africa			**Egypt**		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.
DA (AEM)	360	0.147	0.355	197	0.607	0.490
Ab CFO (REM)	360	0.097	0.297	197	0.560	0.498
Diff.	360	0.050	0.264	197	0.048	0.673
mean(diff)	t = 3.588			t = 0.917		
Ha: mean(diff) != 0	Pr(|T| > |t|) = 0.004			Pr(|T| > |t|) = 0.3603		
	Tunisia			**Morocco**		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.

DA (AEM)	131	0.076	0.031	53	0.038	0.298
Ab CFO (REM)	131	0.084	0.014	53	0.031	0.248
Diff.	131	0.008	0.025	53	0.040	0.312
mean(diff)	t = 2.289			t = 0.814		
Ha: mean(diff) != 0	Pr(|T| > |t|) = 0.7070			Pr(|T| > |t|) = 0.4187		
	Mauritius			**Nigeria**		
Variable	Firm Obs	Mean	Std. Dev.	Firm Obs	Mean	Std. Dev.
DA (AEM)	88	0.148	0.357	102	0.789	0.032
Ab CFO (REM)	88	0.091	0.289	102	0.600	0.017
Diff.	88	0.057	0.233	102	0.189	0.046
mean(diff)	t = 3.196			t = 3.097		
Ha: mean(diff) != 0	Pr(|T| > |t|) = 0.0070			Pr(|T| > |t|) = 0.0030		

On average, the mean values of AEM and REM proxies differ in selected countries. In an ideal case where firms do not engage in AEM or REM, the mean is expected to be zero; however, the results reported are markedly different analysing the information yields several inferences. For instance, in South Africa, Egypt and Tunisia, the t statistics are *3.588*, *0.917* and *2.289*, respectively. A two-tailed t-test for the three countries yields *p* values of *0.004*, *0.3603* and *2.289*, respectively. Except for South Africa, Mauritius and Nigeria, the *p* values for all the other countries exceed the pre-specified alpha level of 5% level of significance. It can be inferred that the difference between AEM and REM is statistically significant in the three countries but insignificant in all the other countries. This is noteworthy as the three mentioned countries have the largest number of SEOs' observations. These results provide mixed evidence rejecting and not rejecting the null hypothesis, which states that there is no statistically significant difference between AEM and REM in SEOs in African securities markets. Overall, the null hypothesis is rejected for South Africa, Mauritius and Nigeria but is confirmed for Egypt, Tunisia, Morocco, and Nigeria. In summary, the link between these two measures can, therefore, be termed as largely complementary and managers are likely to employ either or both tools simultaneously to pursue EM.

Similar research on the relationship between REM and AEM establishes that where managers have the incentive to engage in EM, they usually employ the two measures concurrently in varying degrees. For example, Kim and Sohn (2013) document evidence of REM being positively associated with the cost of equity after controlling for the effects of AEM.

The supposed link between AEM and REM makes it challenging to study the latter without controlling for the former. For instance, Enomoto et al. (2015) emphasize the substitution effect between AEM and REM when undertaking a study on international comparison between the two to shed light on investor protection. It is noteworthy that substitution is emphasized in firms that do not have a robust immediate incentive to engage in EM. However, the results in this study mirror those unearthed in a study by Cohen and Zarowin (2010). The evidence points out that managerial choice to engage in either AEM or REM or both ultimately boils down to their propensity to engage in EM with SEO issuance act as a catalyst for actively pursuing EM. However, the choice to engage in EM is, however, tempered by the ultimate desirable goal or costs of pursuing each type of EM.

7.2.4: Robustness Test

To ensure the results are robust while controlling for REM, Table 7.24 reports the results for REM and AEM estimated using ordered logit regressions for the sampled countries to explain the association between REM in AEM further. For example, Arellano (2010) observes that ordered logit regressions are suitable in dealing with heteroscedasticity as well as cross-sectional challenges of estimating REM and AEM (proxied by DA). The changes in REM explain the changes in DA. In South Africa and Morocco, there are substitution effects between REM and AEM with those for Morocco being significant. In these countries, managers' results show that managers substitute AEM for REM and vice versa. These observations are consistent with findings in related studies examining the association between REM and AEM in SEOs (see

Cohen and Zarowin, 2010; Roychowdhury et al., 2012; Zang, 2012). In this study, the results support the theory that where the substitution effect occurs, increases in REM is linked to a concurrent fall in AEM.

Table 7.24: Logistic Regression Test for AEM and REM Means in Selected Countries

	South Africa	Egypt	Tunisia	Morocco	Mauritius	Nigeria
VARIABLES	DA	DA	DA	DA	DA	DA
REM	0.43*7	0.296	0.816**	-1.153*	1.540*	0.928*
	(0.364)	(0.318)	(0.390)	(0.664)	(0.829)	(0.527)
Constant	2.159***	0.272	-0.197	1.558***	1.322***	0.821**
	(0.305)	(0.235)	(0.281)	(0.550)	(0.398)	(0.362)
Prob > chi2	0.2197	0.3517	0.0349	0.0699	0.0398	0.0756
Pseudo R2	0.0061	0.004	0.0292	0.0506	0.0718	0.0340
Wald chi2(1)	1.51	0.87	4.45	3.29	4.23	3.16
Observations	314	168	111	53	75	90
Standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

On the flip side, evidence emerges of a complementary relationship between REM and AEM in Egypt, Tunisia, Morocco, Mauritius, and Nigeria. In these countries, it is inferred that managers employ both measures to achieve EM. The results in the latter countries show a significant departure from those expected and established in the developed markets. Also, it is noteworthy that, except for Egypt, the results in all the other countries showing the relationship between AEM and REM are significant.

The evidence points out a multi-pronged approach adopted by managers to engage in EM in SEOs in African securities markets. The plausible explanation for this finding is the presence of information asymmetry, a lower financial development index and weak corporate governance infrastructure all work to exacerbate incidences of EM. To test this, corporate governance (proportion of independent directors), information asymmetry (bid-ask spread), and REM interact with REM and the results reported in Table 7.25. These factors provide a leeway for

managers to employ both AEM and REM in a limited oversight environment. The results show that information asymmetry aggravates REM in the year prior and after the SEO at a statistically significant value of *4.472* and *0.004*, respectively. Corporate governance is envisaged to mitigate REM and the result confirms the same at a statistically significant negative value of *-0.033*, *0.013* and *0.002* for *(-1)*, *(0)* and *(+1)* respectively for the SEO.

Table 7.25: REM, Information Asymmetry and Corporate Governance Interaction

	YEARS		
VARIABLES	**REM (-1)**	**REM (0)**	**REM (+1)**
ABS (-1)	4.472**		
	(2.196)		
PINED	-0.033**	-0.013**	0.002***
	(0.008)	(0.047)	(0.005)
ABS(-1)*PINED (-1)	0.004**		
	(0.158)		
ABS(0)*PINED (0)		0.585**	
		(2.544)	
ABS(+1)*PINED (+)			0.109
			(0.134)
Observations	185	220	190
Robust standard errors in parentheses			
***** p<0.01, ** p<0.05, * p<0.1**			

Overall, the evidence emanating from the results is mixed in the securities markets sampled in the study. In Egypt, there is no statistically significant relationship between the two measures. However, in all the other countries, there exists a statistically significant relationship, *albeit* to a certain extent. The extant literature argues about a trade-off between REM and AEM measures when managers engage in EM. This is confirmed by a few observations in Africa. However, for most countries that constitute the emerging markets in Africa, evidence points out a complementary relationship between AEM and REM particularly in a critical firm event such as SEO issuance. This observation corroborates the hypothesis that managers are likely to engage in EM and they will employ both tools at their disposal to achieve EM, particularly during SEO

issuance. These results are the basis for rejecting the null hypothesis stating that there is no significant relationship between AEM and REM in SEOs.

The contribution to theoretical and empirical literature is twofold. Firstly, these results bring to the fore the effect of information asymmetry theory when managers engage in REM in the absence of investors scrutiny. Secondly, the complementary relationship established justifies focusing on real managerial actions from the traditional accruals manipulation.

7.2.5 Results Summary

In summary, this section has attempted to answer the fundamental question of whether EM is more pronounced in those markets where AEM and REM are used as complements as opposed to substitutes. In this section, the results that managers employ AEM and REM measures primarily as complementary or substitutes. In the countries where there is a complementary relationship, the overall level of EM is discernibly higher than in those countries where AEM and REM are employed as substitutes. Consequently, financial performance is more pronounced in countries where managers employ the multipronged approach by employing AEM and REM concurrently to achieve EM and consequently, high financial performance. On the strength of emerging evidence, this research rejects the null hypothesis, which assumes there is no statistically significant relationship between REM and AEM in SEOs. The relationship between EM and the short-run and long-run financial performance is further examined in Hypothesis three and four, respectively.

7.3 Results Presentation and Discussion for Hypothesis Three

This section provides a detailed analysis of the results for the stated hypothesis.

7.3.1 Hypothesis Three Restatement

Hypothesis three seeks to test the effect of EM on the short term financial performance of SEOs. Hypothesis three is restated as follows.

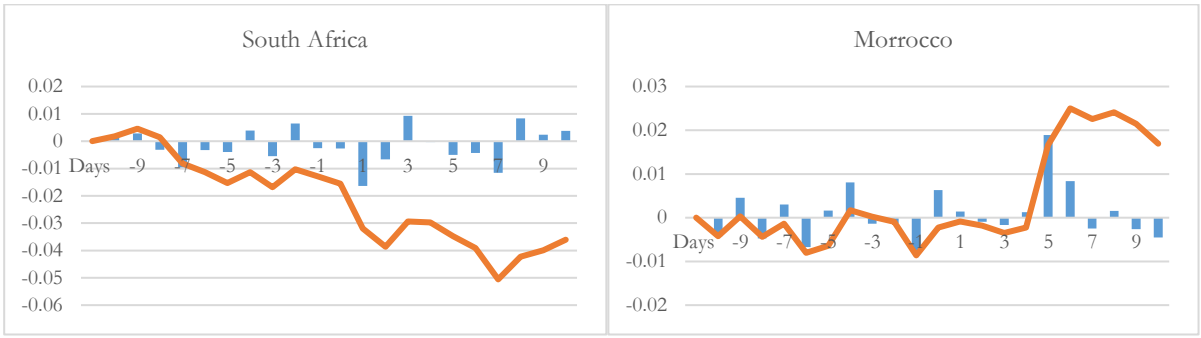
$H_0 = EM\ has\ no\ statistically\ significant\ effect\ on\ the\ short\text{-}run\ financial\ performance\ of\ SEOs.$

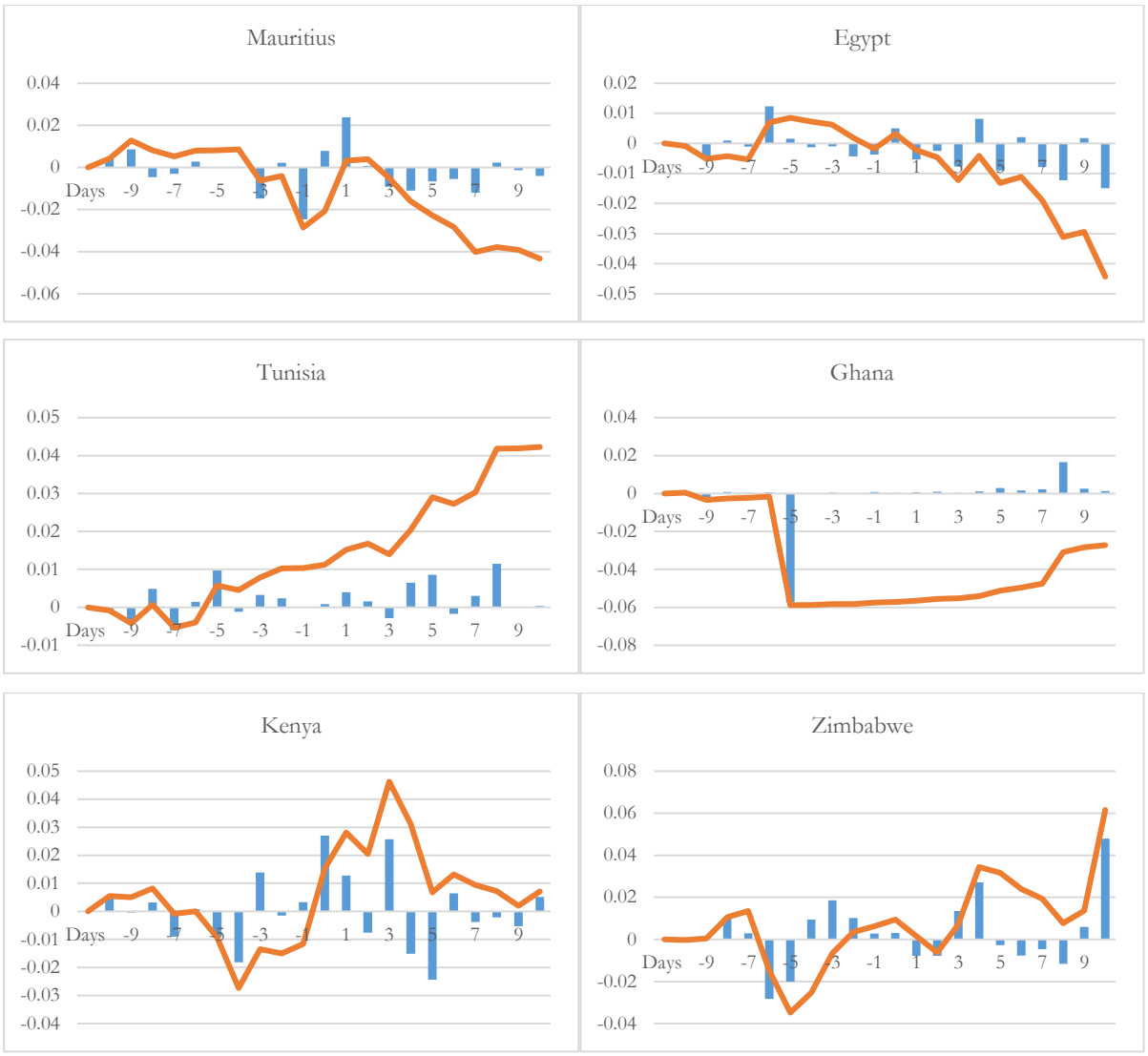
$H_\alpha = EM\ has\ a\ statistically\ significant\ effect\ on\ the\ short\text{-}run\ financial\ performance\ of\ SEOs.$

7.3.2 Descriptive Statistics

Average abnormal returns (Av.AR) shown in bar graphs and cumulative abnormal returns (Cum.AR) drawn as a line graph for various selected securities markets in African countries are presented in Figure 7.21.

Figure 7.31: Av.AR and Cum AR





Line Graph: Cum. AR
Bar Graph: Av. AR

Securities returns (X-axis) are plotted against the period in days (Y-axis). Except for Tunisia and Zimbabwe, the general trend in the rest of the countries shows that Cum.AR falls below the Av.AR during the short run event period of 21 days around the SEO issuance date. The results reported tally with those of prior literature that suggest financial performance (proxied by share

returns) of SEOs falls around the offering date (See Booth and Chang, 2011; Chen, 2017; Shahid et al., 2010). To examine the relationship between AEM and AR, a description for DA and AR and correlation is illustrated for selected African markets in Table 7.31 and 7.32, respectively.

Table 7.31: A Description of Discretionary Accruals

Country	Discretionary Accruals (DAs)			
	Obs.	Mean	Std. Dev.	Median
South Africa	1,428	0.705	0.456	0.655
Egypt	1,008	0.750	0.433	0.565
Tunisia	546	0.577	0.495	0.587
Nigeria	504	0.875	0.331	0.623
Morocco	252	0.667	0.472	0.588
Mauritius	273	0.846	0.361	0.755
Ghana	105	0.800	0.402	0.750
Zimbabwe	189	0.667	0.472	0.654

The observations, mean, standard deviation and median of DA were computed and used to examine the effects of AEM on the short-run performance of SEOs in selected markets across countries. The observations are firm-specific for specific countries. A dummy for DA is employed where 1 represents income increasing DA and zero otherwise. Generally, the mean value for the DA dummy lies between 0.6 and 1, which means that, on average, SEO firms are engaging in income increasing AEM particularly before and during the year of the SEO issuance. This is a plausible indicator that SEO firms, on average, are engaging in income increasing EM up to the point of SEO issuance.

The pairwise correlation between discretionary accruals (DA) for selected countries and abnormal return (AR) in four event windows is reported in Table 7.32. The event windows are Day (0), Days (-1, +1), Days (-5, +5) and Days (-10, +10). A sizeable number of countries exhibit a positive correlation between DAs and AR in the short run. The positive correlation shows that when DA increases, AR also goes up in the same direction. Usually, DA increases during income

increasing EM, resulting in a higher level of AR in both pre and post SEO issuance. The negative DA values in Mauritius, Ghana and Zimbabwe can be possibly attributed to revenue decreasing EM possibly occurring during the post-issuance period (He et al., 2017). Several correlations are statistically significant before and after the issuance showing that the relationship between DA and AR is to a certain extent statistically significant.

The correlation between DA and AR is positive and significant for three event periods. These are Day (0), Days (-5, +5) and Days (-10, +10). However, it is negative for Days (-1, +1). The positive correlation coefficient between DA and AR indicates that AEM and AR move in the same direction except for the event window for Days (-1, +1) which is negative. For Egyptian firms, the correlation coefficient between DA and AR for all the four-event periods is positive, while two event windows are significant. For Tunisian firms, the data shows a negative correlation between DA and AR in the short run.

Table 7.32: Correlation between Variables in the Short Run Model

South Africa												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	1.00*	1.00*	1.00*	1.00								
(5) DA_Dummy	0.00	-0.00	0.10*	0.15*	**1.00							
(6) Listing_Yrs_Log	0.02	-0.02	-0.03	-0.05	-0.11*	1.00						
(7) Q_Ratio_Lag	-0.01	-0.02	0.00	0.06	0.08*	0.12*	1.00					
(8) ISSZE/ MKTCAP	-0.05	0.03	0.03	0.03	0.18	-0.08	-0.08	1.00				
(9) MKTCAP	-0.01	-0.01	0.02	0.07	-0.24	0.04	0.12*	0.39*	1.00			
(10) GDP_Ratio	0.01	0.01	0.10	-0.03	0.02	0.18*	0.14*	0.09*	-0.04	1.00		
(11) MKT_SIZE	-0.00	-0.05	-0.13	-0.12	-0.14*	0.28*	-0.09*	-0.28	0.29	-0.24	1.00	
(12) LEV	0.03	0.01	-0.18*	-0.36*	-0.09*	-0.05	-0.01	0.11*	-0.29*	-0.07*	-0.01	1.00
Egypt												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	1.00*	1.00*	1.00*	1.00								
(5) DA_Dummy	0.03	0.02	0.11	0.13*	1.00							
(6) Listing_Yrs_Log	0.03	0.01	0.01	0.05	-0.06	1.00						
(7) Q_Ratio_Lag	-0.06	0.05	0.22*	0.28	0.12	-0.19*	1.00					
(8) ISSZE/ MKTCAP	0.01	0.01	0.01	-0.02	0.09*	-0.14*	0.14*	1.00				
(9) MKTCAP	-0.04	-0.01	-0.02	-0.13	0.05	0.03	-0.01	-0.19*	1.00			
(10) GDP_Ratio	-0.06	0.09*	0.09	-0.01	0.27*	-0.49*	0.30*	0.27*	0.10*	1.00		
(11) MKT_SIZE	-0.00	-0.04	0.16	0.13	0.09*	-0.09*	0.16*	0.05	0.10*	0.46*	1.00	
(12) LEV	0.00	-0.04	-0.13	-0.20	0.12*	0.03	-0.05	-0.04	0.35*	-0.12*	0.10*	1.00
Tunisia												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	1.00*	1.00*	1.00*	1.00								
(5) DA_Dummy	-0.02	-0.06	-0.12	-0.08	1.00							
(6) Listing_Yrs_Log	0.01	0.06	-0.17	0.13	0.33*	1.00						
(7) Q_Ratio_Lag	-0.02	-0.08	-0.02	-0.04	0.06	-0.38*	1.00					
(8) ISSZE/ MKTCAP	0.02	0.19*	0.27*	0.05	-0.05	0.21*	-0.34*	1.00				
(9) MKTCAP	-0.04	-0.13*	-0.11	0.04	0.36*	-0.19*	0.48*	-0.48	1.00			
(10) GDP_Ratio	-0.04	-0.06	-0.03	-0.05	0.38*	-0.13*	0.06	-0.14	0.43	1.00		
(11) MKT_SIZE	-0.00	0.02	-0.18	-0.30	-0.12*	0.16*	0.01	-0.15	-0.19	-0.36*	1.00	
(12) LEV	0.08	0.18*	0.05	0.07	0.15*	0.23*	-0.28*	0.67*	-0.32*	0.05	-0.17*	1.00
Nigeria												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	0.00	0.00	0.00	1.00								
(5) DA_Dummy	0.04	0.02	0.04	0.22	1.00							
(6) Listing_Yrs_Log	-0.04	-0.05	0.01	-0.04	0.24*	1.00						
(7) Q_Ratio_Lag	0.06	0.09	0.18	0.05	0.10*	-0.29*	1.00					
(8) ISSZE/ MKTCAP	-0.04	-0.03	-0.07	-0.28	0.03	-0.17*	-0.25*	1.00				
(9) MKTCAP	0.02	0.02	0.02	0.22	0.05	-0.01	0.40*	-0.56*	1.00			

(10) GDP_Ratio	0.08	0.10	0.13	-0.37	-0.37*	-0.24*	0.35*	-0.03	0.07	1.00		
(11) MKT_SIZE	-0.04	0.00	0.08	-0.32	-0.12*	0.37*	0.25*	-0.14*	0.10*	0.05	1.00	
(12) LEV	-0.09	-0.10	-0.15	0.49*	0.15*	-0.09	0.03	-0.22*	0.25*	-0.31*	0.14*	1.00
Morocco												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	1.00*	1.00*	1.00*	1.00								
(5) DA_Dummy	*0.00	0.04	*0.21	0.32	1.00							
(6) Listing_Yrs_Log	0.01	-0.05	0.04	0.17	-0.36*	1.00						
(7) Q_Ratio_Lag	0.00	0.04	-0.09	-0.37	-0.08	-0.43*	1.00					
(8) ISSZE/ MKTCAP	0.06	-0.03	-0.04	0.00	-0.38*	0.21*	-0.32*	1.00				
(9) MKTCAP	-0.12	-0.13	-0.08	-0.26	-0.15*	-0.21*	0.48*	-0.58*	1.00			
(10) GDP_Ratio	0.00	0.04	0.19	0.02	-0.36*	0.26*	0.15*	0.27*	0.00	1.00		
(11) MKT_SIZE	0.04	-0.06	0.05	0.00	-0.02	-0.07	0.29*	-0.13*	0.25*	0.08	1.00	
(12) LEV	-0.03	-0.02	0.24	0.21	0.37*	0.14*	-0.30*	-0.20*	0.20*	-0.19*	0.06	1.00
Mauritius												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	1.00*	1.00*	1.00*	1.00								
(5) DA_Dummy	-0.01	*0.10	-0.01	*0.13	1.00							
(6) Listing_Yrs_Log	-0.05	-0.01	-0.07	0.15	0.59*	1.00						
(7) Q_Ratio_Lag	0.04	-0.01	0.07	-0.21	0.26*	-0.10	1.00					
(8) ISSZE/ MKTCAP	-0.01	-0.05	-0.04	-0.22	0.18*	0.07	0.37*	1.00				
(9) MKTCAP	-0.01	0.02	0.05	0.30	-0.10	0.17*	-0.23*	-0.82*	1.00			
(10) GDP_Ratio	0.11	0.02	0.21	-0.29	-0.45*	-0.31*	0.10	-0.18*	0.11	1.00		
(11) MKT_SIZE	-0.03	-0.01	-0.14	-0.31	-0.12	-0.01	-0.70*	-0.40*	0.15*	-0.08	1.00	
(12) LEV	0.01	-0.01	-0.02	-0.19	0.29*	-0.12*	0.66*	0.79*	-0.76*	-0.31*	-0.55*	1.00
Zimbabwe												
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
(1) AR(10,+10)	1.00											
(2) AR (-5, +5)	1.00*	1.00										
(3) AR (-1, +1)	1.00*	1.00*	1.00									
(4) AR (0)	0.43	0.43	0.43	1.00								
(5) DA_Dummy	0.09	0.04	-0.15	0.50	1.00							
(6) Listing_Yrs_Log	-0.10	-0.11	0.10	-0.14	-0.01	1.00						
(7) Q_Ratio_Lag	-0.01	-0.10	-0.21	-0.23	0.29*	-0.43*	1.00					
(8) ISSZE/ MKTCAP	0.01	0.00	0.04	-0.24	0.40*	-0.04	-0.07	1.00				
(9) MKTCAP	-0.03	-0.13	-0.14	0.14	-0.33*	-0.01	0.19*	-0.74*	1.00			
(10) GDP_Ratio	0.06	0.00	-0.35	0.22	0.32*	-0.60*	0.31*	0.35*	0.13	1.00		
(11) MKT_SIZE	0.01	-0.02	0.12	-0.18	-0.16*	0.06	-0.01	-0.26*	-0.13	-0.55*	1.00	
(12) LEV	0.07	0.15	0.20	-0.22	-0.38*	-0.03	-0.09	-0.14*	-0.07	-0.19*	-0.16*	1.00
Standard errors in parentheses												
***** p<0.01, ** p<0.05, * p<0.1**												

Since AEM can either be income increasing or otherwise, the correlation coefficients sign possibly suggests that in these firms, investors are wary of future earnings restatements by SEOs;

therefore, AR drops. Overall, the coefficient between DA and AR fluctuates within the various event windows.

7.3.3 Inferential Statistics

To examine the effect of EM on short term financial performance of SEOs, this study employs a short-run model using the defined metrics in the model in addition to the main variables of interest, DA and AR. More specifically, a cross-sectional analysis is undertaken by employing a System GMM to report the relationship between these variables for all selected securities markets. Table 7.33 reports the regression results for the short-run model examining the effects of EM on the short-run AR performance of SEOs.

Table 7.33: Regression Results in Selected African Markets

	SOUTH AFRICA				EGYPT			
Variables	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**
ISSZE/ MKTCAP	0.032	0.002	-0.038**	-0.026**	0.044	0.014	0.012*	0.011
	(0.091)	(0.039)	(0.017)	(0.012)	(0.095)	(0.046)	(0.007)	(0.015)
LISTING_YRS	-0.011	-0.002	-0.001	0.003	0.010	0.005	0.002	0.003
	(0.018)	(0.008)	(0.003)	(0.003)	(0.011)	(0.006)	(0.003)	(0.003)
DA_Dummy	0.019	0.010	0.001	0.002	0.004	0.005	0.004	0.003
	(0.024)	(0.011)	(0.005)	(0.003)	(0.012)	(0.007)	(0.004)	(0.003)
Tobin Q Ratio (Lag)	0.002	0.000	-0.000	-0.000	0.001***	0.000**	-0.000	-0.000
	(0.002)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
MKT_SIZE (log)	-0.024	-0.026	-0.014*	-0.005	-0.002	-0.002	-0.001	-0.001*
	(0.037)	(0.016)	(0.007)	(0.005)	(0.003)	(0.001)	(0.001)	(0.001)
LEV	-0.007***	-0.002**	0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(0.002)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.272	0.273	0.142*	0.040	-0.127	-0.132*	0.024	-0.007
	(0.387)	(0.167)	(0.077)	(0.053)	(0.133)	(0.071)	(0.048)	(0.034)
R – Squared	0.162	0.054	0.010	0.005	0.164	0.101	0.016	0.008
Observations	67	201	737	1,407	44	132	484	924
	MOROCCO				**TUNISIA**			
Variables	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**
ISSZE/ MKTCAP	0.016	0.013	0.032***	0.023**	-0.047	0.097***	0.059*	-0.014
	(0.069)	(0.016)	(0.012)	(0.009)	(0.055)	(0.037)	(0.034)	(0.014)

LISTING_YRS	0.015	0.010**	0.001	0.001	0.010	-0.007	0.001	-0.001
	(0.011)	(0.004)	(0.003)	(0.002)	(0.007)	(0.006)	(0.003)	(0.002)
DA_Dummy	0.034	0.020***	0.008*	0.005*	-0.009	-0.001	-0.003	-0.000
	(0.020)	(0.007)	(0.004)	(0.003)	(0.010)	(0.006)	(0.003)	(0.002)
Tobin Q Ratio (Lag)	-0.007	0.003	0.007*	0.004*	0.002	-0.000	0.001	0.001
	(0.025)	(0.004)	(0.003)	(0.002)	(0.006)	(0.003)	(0.002)	(0.002)
MKT_SIZE (Log)	-0.003	-0.003***	-0.002*	-0.001	-0.001	0.001	-0.000	0.000
	(0.007)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
LEV	-0.001	0.002	-0.000	-0.001	0.000	-0.001	0.000	0.000**
	(0.009)	(0.003)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)
Constant	-0.194	-0.088	0.110	-0.083	0.417	0.185	-0.055	-0.004
	(0.851)	(0.275)	(0.146)	(0.099)	(0.250)	(0.159)	(0.084)	(0.064)
R – Squared	0.234	0.086	0.009	0.008	0.167	0.158	0.050	0.009
Observations	12	36	132	252	26	78	286	546
	NIGERIA				**MAURITIUS**			
Variables	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**
ISSZE/ MKTCAP	-0.129	-0.138	-0.149	-0.171**	-0.151	-0.025	-0.021	0.002
	(0.184)	(0.247)	(0.104)	(0.084)	(0.142)	(0.072)	(0.076)	(0.046)
LISTING_YRS	0.004	0.016	-0.008*	-0.008**	0.013	0.012	-0.019	-0.004
	(0.015)	(0.011)	(0.005)	(0.004)	(0.017)	(0.012)	(0.013)	(0.008)
DA_Dummy	0.007	-0.001	0.001	0.003	0.001	-0.016	0.023	0.003
	(0.009)	(0.007)	(0.004)	(0.004)	(0.012)	(0.016)	(0.016)	(0.010)
Tobin Q Ratio (Lag)	-0.008	0.003	-0.005	-0.008*	0.009	0.022	-0.016	-0.001
	(0.006)	(0.013)	(0.005)	(0.004)	(0.013)	(0.016)	(0.017)	(0.010)
MKT_SIZE (Log)	0.001	-0.001	0.002	0.002**	-0.387**	-0.194	-0.051	-0.006
	(0.002)	(0.003)	(0.001)	(0.001)	(0.144)	(0.206)	(0.065)	(0.040)
LEV	0.005*	-0.011	-0.004*	-0.003**	0.000	-0.005	-0.001	-0.001
	(0.002)	(0.008)	(0.002)	(0.001)	(0.006)	(0.009)	(0.003)	(0.002)
Constant	0.455	-0.997	-0.332	-0.095	3.082**	1.541	0.421	0.046
	(0.330)	(1.270)	(0.351)	(0.191)	(1.142)	(1.636)	(0.512)	(0.317)
R – Squared	0.376	0.075	0.028	0.016	0.599	0.048	0.028	0.005
Observations	19	57	209	399	13	39	143	273
	KENYA				**ZIMBABWE**			
Variables	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**
ISSZE/ MKTCAP	-0.002***	-0.001	-0.002	-0.001**	-0.002**	-0.001	-0.001	-0.001
	(0.000)	(0.007)	(0.009)	(0.007)	(0.000)	(0.001)	(0.002)	(0.002)
LISTING_YRS	0.006	0.022	-0.009*	-0.013**	-0.010	-0.009**	-0.032**	-0.028***
	(0.007)	(0.006)	(0.003)	(0.002)	(0.006)	(0.004)	(0.015)	(0.010)
DA_Dummy	0.004	-0.018	0.022	0.032	0.014***	-0.000	0.024*	0.025**

	(0.022)	(0.017)	(0.003)	(0.003)	(0.001)	(0.010)	(0.014)	(0.011)
Tobin Q Ratio (Lag)	-0.008***	-0.004	-0.019**	-0.011	-0.008***	-0.005***	-0.015	-0.011
	(0.000)	(0.007)	(0.009)	(0.007)	(0.001)	(0.002)	(0.010)	(0.008)
MKT_SIZE (Log)	0.011	-0.001	0.022	0.002**	0.004	0.003***	0.011**	0.008**
	(0.002)	(0.003)	(0.001)	(0.001)	(0.002)	(0.001)	(0.005)	(0.004)
LEV	0.114	0.286	0.134	-0.086*	-0.000	0.001	0.001*	0.000
	(0.000)	(0.280)	(0.095)	(0.051)	(0.000)	(0.001)	(0.000)	(0.000)
Constant	-0.396	4.566	7.340***	4.022***	0.046**	-0.061	0.027	-0.014
	(0.000)	(6.086)	(2.127)	(1.254)	(0.005)	(0.080)	(0.107)	(0.087)
R – Squared	0.854	0.737	0.428	0.147	0.997	0.109	0.089	0.044
Observations	13	42	193	288	13	39	143	273
Standard errors in parentheses								
***** p<0.01, ** p<0.05, * p<0.1**								

The number of observations in each country increases with a larger event window across the countries. The variable of interest is DA which is the predictor variable and AR as the dependent variable. On average, the effect of DAs on AR is statistically significant in some event windows and insignificant in others in various countries. *Ceteris paribus*, a one percentage point increase in the value of DA in the South African market translates to a 1.9% change in AR for event window one (AR 0), 1% for event window two (-1, +1), 0.1% for event window three (-5, +5) and 3% for event window four (-10, +10). All the coefficients are positive for the event windows showing that investors' sentiment on SEO remains optimistic and bullish during the issuance period. A similar interpretation can be extended to Egypt, Tunisia, Nigeria, Mauritius, and Kenya, where the coefficients are mainly positive and, in some cases, insignificant in the short run.

In contrast, a different picture emanates from Morocco and Zimbabwe, where the coefficients are positive and significant. In these two markets, the level of DA in SEOs significantly influences the AR in all the observed event windows with event windows (0) and (-1, +1) being the only exceptions in Morocco and Zimbabwe, respectively. These results suggest that EM proxied by DA does not significantly influence the short-run wealth of SEOs. Therefore, the statistical significance of EM in the short run appears to be an exception rather than the norm.

Next, the significant coefficients on the control variables are discussed. The coefficient on the issue size variable is examined and results suggest that it is significant in all the countries except for Mauritius. Mainly, the significance of this variable mainly lies between the five and ten-day event periods. Moreover, it is mainly positive on the date of the issuance before changing the sign in subsequent event periods. This indicates that the issue size relative to market capitalization does have a significant effect on AR; therefore, yielding confirmatory evidence that an SEO issuer size influences market reaction. This evidence contradicts Seetharam and Cunha (2018) who establish that market reaction to SEOs is not affected by a firm's relative issue size. The coefficient on the market size of firms is significant in the sampled markets. This finding suggests that firm size has a significant impact on firm returns. These results are consistent with Huang et al., (2016) who observes that firm size positively influences the firm returns as investors are more likely to view larger firms more favourably than smaller ones when subscribing to an SEO.

The evidence on the influence of leverage on financial performance is largely mixed. In half of the markets, the coefficient on leverage is statistically significant, particularly in the larger markets, namely, South Africa, Egypt, and Morocco. However, the coefficient is largely economically insignificant.

The coefficient for Tobin Q is statistically significant in some markets and insignificant in others. The significance is an indicator that in some markets, investors consider a firms' investment opportunities since Tobin Q is a suitable proxy for a firm's perceived quality of its future value.

Pooled regression is vital in obtaining an overall picture of the effect of DA on AR for all the selected markets, as reported in Table 7.34. The main variables of interest are DA (a proxy for AEM) and AR (a proxy for short-run SEOs' performance).

Table 7.34: Pooled Regression Results for selected African Markets

	Abnormal Return Periods			
VARIABLES	**AR (0)**	**AR (-1, +1)**	**AR (-5, +5)**	**AR(10,+10)**
LISTING_YRS	0.002	0.000	-0.001	0.000
	(0.008)	(0.005)	(0.002)	(0.001)
DA_Dummy	0.016*	0.008	0.002	0.002
	(0.010)	(0.006)	(0.003)	(0.002)
Tobin Q Ratio (Lag)	0.001	0.000	-0.000	-0.000
	(0.001)	(0.000)	(0.000)	(0.000)
MKT_SIZE (Log)	-0.016	-0.004	-0.004	0.000
	(0.017)	(0.011)	(0.004)	(0.003)
ISSZE/ MKTCAP	-0.002	0.000	-0.000	-0.000
	(0.008)	(0.005)	(0.002)	(0.001)
LEV	-0.000	-0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Country-Specific Control Dummies				
(South Africa)	0.077	0.017	0.015	-0.005
	(0.092)	(0.061)	(0.024)	(0.016)
(Egypt)	0.030	0.006	0.002	-0.005
	(0.040)	(0.027)	(0.011)	(0.007)
(Morocco)	0.051	0.018	0.013	-0.001
	(0.061)	(0.041)	(0.016)	(0.011)
(Tunisia)	0.087	0.045	0.020	-0.002
	(0.090)	(0.060)	(0.024)	(0.016)
(Nigeria)	0.063	0.018	0.015	-0.003
	(0.073)	(0.049)	(0.019)	(0.013)
(Mauritius)	0.043	0.015	0.001	-0.006
	(0.049)	(0.033)	(0.013)	(0.008)
(Kenya)	0.034	0.011	-0.001	-0.005
	(0.054)	(0.036)	(0.014)	(0.009)
(Zimbabwe)	-0.001	0.002	-0.008	-0.005
	(0.039)	(0.026)	(0.010)	(0.007)
Constant	0.073	0.016	0.026	0.001
	(0.089)	(0.060)	(0.024)	(0.015)
Observations	198	594	2,178	4,158
R-squared	0.042	0.022	0.004	0.003

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

These results control for specific country effects by the inclusion of country dummy variables. The main observation is that EM is associated with a significant increase in abnormal returns for the specific date of SEO denoted as day zero. However, the coefficient is mildly significant at the 10 percent level. The relationship between EM and AR is insignificant for the other event windows.

Also, the results from the analysis suggest an observed bump in AR and CR around the SEO announcement date. This can be attributed to the positive investor sentiment generated from the announcement. Generally, share returns are bullish before the announcement date with the 11-day event period (+5, -5) indicating the highest level of fluctuating AR. In this study, the AR averages around 5% across the selected markets sampled in this study. Also, different windows also observed to ensure this inference is robust. These results are consistent with Shahid et al., (2010) who observed similar heightened activity around the SEO announcement date. It can be inferred that SEO issues are linked with positive market reaction. The effect of AEM on AR in some markets; South Africa, Tunisia, and Mauritius, is positive and significant while in the rest of the countries, it is insignificant as evidenced by the Wilcoxon signed-rank test between the two terms.

Overall, the empirical evidence suggests that AEM does have a statistically significant effect on the short term effect of the AR of SEOs in some countries but none in others among the markets examined. The level of significance differs across the various markets. This study does not conclusively reject the null hypothesis, which states that EM has no statistically significant effect on short-run firm financial performance in SEOs in select African securities markets. In this study, the findings mirror some that have been posited in various related studies. For instance,

Shu and Chiang (2014) document that firm performance (proxied by returns) in smaller firms is attributable to market timing. In larger listed firms, firm performance is affected by AEM. Moreover, there is a positive correlation between AEM and returns. On the other hand, Seetharam and Cunha (2018) also establish that firms that issue SEO tend to underperform in the short run; however, their results cast a shadow on the market timing theory.

Concerning theories discussed prior, these results support the information asymmetry and signalling theory. Positive investor sentiments around the announcement date impact on the SEOs returns, showing that the signalling theory is at play. The fall in returns post announcement is attributable investor adjusted perception of the firm once it has completed the SEO. Also, agency theory is present when investors and shareholders' goals are at odds with those of managers during the SEO.

7.3.4 Model Specification Tests: Over-identification and Endogeneity

To test the specification of the short-run model employed to determine the effects of EM on short-term SEOs financial performance, the Sargan - Hansen's J statistic is used to determine the validity of the overidentifying restrictions in the GMM model. The test is critical in evaluating the validity of the parameters employed in the model. Moreover, a test for endogeneity using the Hausman test is also carried out. The results are presented in Table 7.35.

Table 7.35: Specification Tests for the Short Run Model

Country	Hansen J Statistics Test	Endogeneity Test
South Africa	Hansen's J chi2(2) = .336128 (p = 0.8453)	GMM C statistic chi2(1) = .97264 (p = 0.3240)
Egypt	Hansen's J chi2(3) = 2.82873 (p = 0.2431)	GMM C statistic chi2(1) = .254512 (p = 0.6139)
Tunisia	Hansen's J chi2(3) = 1.40328 (p = 0.4958)	GMM C statistic chi2(1) = 3.63615 (p =0.0565)

Nigeria	Hansen's J chi2(3) = 5.29609 (p = 0.0708)	GMM C statistic chi2(1) = 2.55551 (p = 0.1099)
Morocco	Hansen's J chi2(3) = .804268 (p = 0.6689)	GMM C statistic chi2(1) = 3.20375 (p = 0.0735)
Mauritius	Hansen's J chi2(3) = 4.7493 (p = 0.0930)	GMM C statistic chi2(1) = .173833 (p = 0.6767)
Ghana	Hansen's J chi2(3) = 1.7546 (p = 0.2883)	GMM C statistic chi2(1) = .364547 (p = 0.5436)

7.3.4.1 Test for Over-identifying Restrictions (Hansen J Statistic)

The additional instruments in the short run model make the model be over identified, enabling the test of over-identifying restrictions. Since a GMM estimator has been employed in this model, Hansen's J statistics chi-squared test is reported. Except for Nigeria and Mauritius, the generally high values of *p* compared to the test statistics obtained from the Hansen J statistic indicate that the model's instruments are not correlated with the error of the main regressors therefore, they are valid. Low values for J for all the countries except Nigeria and Mauritius add to evidence that the model is valid. The two countries exhibit different characteristics as a result of having a high number of services firms that possess fewer total assets and thus affect the computation of DA. These attributes can be classified as confounding effects. There exists a relationship between DA and AR and that the variables used in the model are exogenous.

7.3.4.2 Test for Endogeneity (The C Difference in Sargan Statistic)

This test is carried out to determine whether endogenous regressors in the model are exogenous. The null hypothesis in this test assumes that variables in the model are exogenous. Except for Mauritius, the *p* values are lower than the computed test statistic. The null hypothesis that states that variables in the model are exogenous is not rejected. Therefore, it is inferred that variables in the model are exogenous.

7.3.5 Results Summary

This chapter sought to test the effect of EM on short-term SEOs financial performance. The findings suggest that EM has a statistical significance on short term SEO financial performance in some markets but not in others. These results are the basis to further probe on what effect EM has on long-run SEO financial performance as addressed in hypothesis four.

7.4 Results Presentation and Discussion for Hypothesis Four

Hypothesis four investigates the relationship between EM and the long-run performance of SEOs.

7.4.1 Hypothesis Four Restatement

Hypothesis four is restated as follows:

H_0 = *EM has no statistically significant effect on the long-run performance of SEOs in select African securities markets.*

H_α = *EM has a statistically significant effect on the long-run performance of SEOs in select African securities markets.*

7.4.2 Descriptive Statistics

Table 7.41 illustrates a summary of the return on assets (*ROA)* and discretionary accruals *(DA)* across firms in various selected markets in African countries.

Table 7.41: Summary of ROA and DA across Selected Countries

Country	Variable	Obs	Mean	Std. Dev.
South Africa	ROA	299	-7.827	106.76
	DA	332	0.450	0.499
Egypt	ROA	129	-1.737	10..385
	DA	157	0.548	0.499
Tunisia	ROA	72	5.219	9.649
	DA	83	0.590	0.495
Nigeria	ROA	58	3.358	11.262
	DA	77	0.818	0.388
Morocco	ROA	49	4.399	4.217
	DA	49	0.714	0.456
Mauritius	ROA	68	-0.685	6.707
	DA	77	0.909	0.289
Ghana	ROA	19	0.915	9.437
	DA	21	1.000	0.00
Kenya	ROA	33	-0.545	16.718
	DA	34	0.794	0.410

For each firm, there are six different years' observations (*Obs*). The source panel data consists of three years before the SEO *(-3, -2 and -1)* and three years after the SEO *(+1, +2 and +3)* with the SEO year being year *(0)*. A dummy for DA is employed in the panel representing 1 for income increasing EM and 0 for income decreasing EM. On average, the mean values for DA are strongly positive (a value is regarded as strongly positive if it lies between 0.5 and 1) particularly in the 24 months preceding the issuance. This can be inferred that SEOs are engaging in EM as signalled by the positive average DA of greater than 0.5. The general observable trend is that firms engage in income increasing EM up to the point of SEO issuance. However, after the issuance, the average value for DA lies between *(0.5 and 0)*. This indicates that firms are engaging in income decreasing EM after the SEO issuance in the long run (one to three years post-issuance).

Results for ROA are mixed with fewer countries reporting positive values (Tunisia, Nigeria, and Ghana) while the rest of the countries report negative values. This finding supports the underlying theory, which presupposes that SEOs tend to post lower performance in the long run (Allen and Soucik, 2008; Huang et al., 2014; Lyanndres et al., 2005).

Table 7.42 reports the correlation values between crucial variables in the long-run model for SEOs in selected African securities markets. On average, the correlation between DA and ROA is positive across several markets, suggesting that an increase in *DA* leads to a concurrent rise in *ROA* as managers overstate their earnings.

Table 7.42: Correlation between Key Variables in the Long Run across Countries

Country	Variable	ROA	TOBIN_Q_LAG	MKTCAP	LEV
South Africa	DA	0.049*	0.006	0.125	-0.051
Egypt	DA	0.130	0.067*	0.066**	-0.185
Tunisia	DA	0.468*	0.261	0.421	-0.231
Nigeria	DA	0.113*	0.017*	0.085	-0.053
Morocco	DA	0.089	-0.008**	0.301**	0.337
Mauritius	DA	0.259*	0.166	-0.316	-0.199
Ghana	DA	-0.056	0.007**	-0.035	-0.188**
Kenya	DA	0.093**	0.023	0.154	-0.276

The Tobin Q values are mainly positive to the DA showing that SEOs are primarily growing firms whose valuation by market capitalization incrementally outstrips their replacement value. The back of the envelope calculation indicates that EM is associated with a higher valuation of SEOs across the various markets as indicated by Tobin Q values which are greater than 1. Further, this is tested in the empirical section of this hypothesis. The *MKT_CAP* value is positively correlated with *DA*. The positive relationship between the two variables is probably attributable to a higher valuation of SEOs as a result of earnings managed inflated earnings. *LEV* is negatively correlated to DA, which is attributable to agency issues. SEOs are less likely to engage in EM because there is a lower level of disposable funds to exercise discretion over as a result of high-interest pay-outs.

Table 7.43 reports the pairwise correlation values between DA and ROA in the long run. The period ranges from three years prior *(-3)* to the third year after the issuance *(+3)*. Year *(0)* is the SEO issuance year.

Table 7.43: Correlation between DA and ROA for SEOs in the Long Run in Select Markets

Country	Years						
	-3	-2	-1	0	+1	+2	+3
	Correlation between DA and ROA						
South Africa	0.070	0.033*	0.120**	-0.026	-0.044**	-0.007	-0.036
Egypt	0.021	0.064	0.104**	0.014*	-0.018	0.103	0.064
Tunisia	0.209	0.166	0.1502	-0.133*	0.1741	0.1451*	0.1596
Nigeria	0.054	0.0506*	0.059**	0.003	0.024	0.061	-0.174
Morocco	-0.132	0.169	-0.057	0.054	-0.154**	-0.260	0.118*
Mauritius	0.028	-0.066**	0.099	-0.126	-0.185	-0.146**	-0.145
Ghana	-0.267	-0.003	0.365**	-0.256	0.181	-0.117	-0.273
Kenya	0.237	-0.134	0.061	-0.011	0.151	0.144	-0.188

The data shows that on average, except for two countries, the correlation between the variables is positive before the issuance up to the year *(-1)*. A plausible explanation to this observation is that firms are engaging in revenue increasing EM as denoted by positive DA. However, on the year of the issuance and the year shortly after, the values are broadly negative denoting instances of earning restatements. Another reason is that investors are now able to correctly attach the real value to the firm once the enthusiasm of the SEO and its potential earning prospects wanes. Also, these findings are consistent with the extant literature which shows that SEOs financially underperform in the long run (Allen and Soucik, 2008; Huang et al., 2016; Teoh et al., 1998).

Panel A of Table 7.44 reports the mean and number of firm observations across countries in the long run period pre the SEO and another three years post the SEO. ROA is considered a better measure than ROE in the context of EM and financial performance because it accounts for financial leverage which is a control variable for firm performance (Agrawal, Mohanty and Totala, 2019). However, for robustness, a panel for ROE, as well as its regression results, are reported in Panel B, respectively.

Table 7.44: Description of SEOs ROAs in Selected Markets

Panel A

Country	Years	Return on Assets (ROA) in Years						
		-3	-2	-1	0	+1	+2	+3
South Africa	Mean	-0.328	0.619	-0.291	-0.252	-1.272	-0.519	-5.576
	Obs.	336	336	336	299	336	336	336
Egypt	Mean	-0.102	-0.064	0.021	-0.419	-0.419	-0.206	-0.053
	Obs.	161	161	161	161	161	161	161
Tunisia	Mean	2.309	0.997	0.877	0.603	-0.477	0.419	0.109
	Obs.	84	84	84	84	84	84	84
Nigeria	Mean	1.551	0.044	0.322	0.526	0.188	0.278	0.099
	Obs.	77	77	77	77	77	77	77
Morocco	Mean	1.230	0.791	0.618	0.533	0.541	0.649	0.568
	Obs.	49	49	49	49	49	49	49
Mauritius	Mean	-0.235	-0.198	-0.387	-0.555	-0.226	0.164	0.209
	Obs.	77	77	77	77	77	77	77
Ghana	Mean	-0.745	-0.005	-0.557	-0.621	-0.293	1.273	0.100
	Obs.	21	21	21	21	21	21	21
Kenya	Mean	2.067	0.588	0.767	0.803	-1.005	-1.229	-1.366
	Obs.	35	35	35	35	35	35	35

Panel B

Country	Years	Return on Assets (ROE) in Years						
		-3	-2	-1	0	+1	+2	+3
South Africa	Mean	-0.321	0.546	-2.233	-1.437	-3.287	-1.552	-5.576
	Obs.	336	336	336	299	336	336	336
Egypt	Mean	-0.102	0.070	0.083	-0.943	-1.069	0.549	-0.052
	Obs.	161	161	161	161	161	161	161
Tunisia	Mean	2.309	1.894	1.533	0.046	-4.866	0.0778	0.109
	Obs.	84	84	84	84	84	84	84
Nigeria	Mean	1.551	-1.519	0.194	-0.476	-1.528	0.441	0.099
	Obs.	77	77	77	77	77	77	77
Morocco	Mean	1.230	1.769	1.261	1.210	1.127	1.538	0.568
	Obs.	49	49	49	49	49	49	49
Mauritius	Mean	-0.235	-1.002	-3.695	-3.015	0.416	0.299	0.210
	Obs.	77	77	77	77	77	77	77
Ghana	Mean	-0.745	-0.669	-2.999	-1.705	-0.622	1.700	0.101
	Obs.	21	21	21	21	21	21	21

Kenya	Mean	2.067	0.989	1.625	1.815	-3.815	-4.763	-1.366
	Obs.	35	35	35	35	35	35	35

On average, the ROA values are higher in the period before the SEO. Post SEO, the ROA values are on average lower. The lowest values are observed in the first year after the SEO issuance. It is noteworthy that several correlations between DA and ROA are significant in the year before the offering. Moreover, the year preceding the SEO on average posts the best performance. It can be inferred from the results that firms do manage their earnings in the period just preceding the SEO.

7.4.3 Inferential Statistics

To examine the effect of EM on the long term financial performance of SEOs, this study employs a long-run model using the defined metrics in the long-run model between DA and the measures of long-run financial performance (ROA and ROE). More specifically, a cross-sectional analysis is undertaken by employing a system GMM weight matrix to present the relationship between these variables for all the selected securities markets.

Table 7.46 reports the regression coefficients on the DA variable with respect to, ROA and ROE, for each of the years ranging from three years prior to the SEO, and three years after the SEO.

Table 7.46: Regression Results between EM and ROA/ROE in Selected Markets

SOUTH AFRICA							
Returns on Asset (ROA) and Return on Equity (ROE)							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	1.103**	0.572***	-1.598**	0.079	0.005***	0.408	-1.374***
	(0.720)	(0.695)	(0.924)	(0.631)	(1.331)	(0.736)	(13.744)
DA (ROE)	1.095	1.992	-5.121*	-1.665**	-0.992	2.139	-1.374
	(1.793)	(1.798)	(2.956)	(2.286)	(4.282)	(2.089)	(13.744)
(Obs)	292	292	292	292	292	292	292

EGYPT							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	0.061	0.836	1.375**	-0.010	-0.927	0.163	0.255
	(0.855)	(0.810)	(0.618)	(0.852)	(0.816)	(0.523)	(0.355)
DA (ROE)	0.422	1.085	2.680**	0.562**	-0.497	0.441	0.255
	(1.539)	(1.138)	(1.346)	(1.690)	(1.750)	(2.027)	(0.355)
(Obs)	107	107	107	107	107	107	107
TUNISIA							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	1.291	1.470	0.802**	-0.002	0.081	0.015	0.153
	(0.986)	(1.343)	(1.253)	(1.202)	(1.201)	(0.999)	(0.720)
DA (ROE)	3.311	2.665	1.338**	3.599	-2.808	-1.168	0.153
	(2.181)	(2.538)	(2.230)	(3.214)	(7.933)	(2.294)	(0.720)
(Obs)	74	74	74	74	74	74	74
NIGERIA							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	2.028	1.887	1.113	-1.340	-0.825	-0.946	-2.552**
	(2.418)	(1.941)	(1.666)	(2.415)	(1.376)	(1.451)	(1.071)
DA (ROE)	3.850	5.368	10.010**	-9.190	-9.169	-1.404	-2.552**
	(3.496)	(8.202)	(4.866)	(9.390)	(7.075)	(2.924)	(1.071)
(Obs)	54	54	54	54	54	54	54
MOROCCO							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	-0.315	1.916**	-0.005***	0.134	-0.456	-1.419**	0.744
	(0.746)	(0.897)	(0.534)	(0.846)	(0.660)	(0.667)	(0.734)
DA (ROE)	-2.598*	4.848**	-0.197	0.740	-1.346	-2.986**	0.744
	(1.363)	(2.303)	(1.467)	(1.819)	(1.460)	(1.450)	(0.734)
(Obs)	49	49	49	49	49	49	49
MAURITIUS							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	0.139	0.135	0.271**	-0.057	-0.064	-0.089	-0.012
	(0.394)	(0.855)	(0.927)	(0.941)	(0.520)	(0.290)	(0.344)
DA (ROE)	-0.403	0.179	5.919	3.568	-0.166	-0.100	-0.012
	(1.207)	(2.776)	(7.123)	(5.542)	(0.844)	(0.444)	(0.344)
(Obs)	107	107	107	107	107	107	107
GHANA							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	-1.424	-0.909**	2.960**	-1.817	0.697	-2.658	-0.056
	(1.466)	(1.298)	(2.465)	(1.920)	(0.954)	(3.673)	(0.212)
DA (ROE)	-2.594	-5.264	9.068	-4.919	1.529	-2.507	-0.056
	(2.643)	(3.111)	(7.878)	(5.215)	(2.021)	(5.755)	(0.212)

(Obs)	18	18	18	18	18	18	18
KENYA							
	-3	**-2**	**-1**	**0**	**1**	**2**	**3**
DA (ROA)	1.028	-1.163**	-0.064**	-0.540	4.770	4.442**	0.744
	(1.415)	(1.374)	(1.193)	(1.081)	(4.600)	(4.266)	(0.734)
DA (ROE)	1.763	-1.764	-0.127	-1.268	14.406	15.314	-7.735*
	(3.039)	(2.944)	(2.347)	(2.453)	(14.817)	(14.183)	(3.918)
(Obs)	33	33	33	33	33	33	33
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Although not shown, several specific firms, industry and country controls have been incorporated in the Table (see 6.54). The comprehensive Tables incorporating all the controls for all the countries are contained in Appendices I and II. The SEO issue year is shown as the year (0). Firm observations are abbreviated as (*Obs*) while standard errors are shown in brackets. Mainly, on average, the DA coefficients are mainly positive in the two years preceding the issuance and during the date of the SEO issuance. In the year *(0)* the DA value for South Africa and Egypt, respectively are *0.079* and -*0.01*. These values can be interpreted as follows; a unitary increase in the value of DA by one lead to a positive increase in the value for ROA by *0.079* and a decrease of -*0.01* respectively for South Africa and Egypt. The same interpretation is extended to the other markets sampled in the study. In several markets, the coefficient for DA (ROA) is negative in the year of issuance as well as an average of two years post SEO issuance.

To ensure robustness, ROE is also shown alongside ROA in the Table reported as the regression coefficients between DA and ROE. On average, the coefficient for DA is statistically significant in the year preceding the SEO issuance in almost all the markets except for Nigeria. These findings are, on average prevalent across all the markets. The results control for firm-specific, industry and country-specific factors. From the positive value for coefficients, it can be inferred that a unitary change in the value of DA results to a lower proportionate change in the value of ROA in the same direction. In summary, increased values of DA, and consequently EM, lead to

inflated values of ROA and consequently, inflated earnings. From these findings, it is evident there is a higher than normal level of firm performance as shown by a significant coefficient for ROA and ROE before during and after the SEO issuance.

Besides, the evidence from the Table shows that the DA values become negative in the post-issuance period with the highest dip being recorded in the first year. The largest negative value is recorded in South Africa with other markets posting a similar pattern. Ghana and Kenya post positive but weak DA coefficients with ROA and ROE. Partly, this may be as a result of a small number of firms engaging in SEOs in those two markets. Moreover, the year preceding the SEO has statistically significant coefficients of DA compared to other years under observation. South Africa and Egypt, two countries with the largest representative sample, report negative and statistically significant coefficients of DA in the year just before the SEO. It can be inferred that there is a significant relationship between EM and SEO performance for the year before the offering.

Concerning ROE, the DA values are on average, statistically significant in the year before the issuance. The results in the Table report a statistically significant change in DA value in the year preceding the SEO, which influences the value of ROE during the SEO. Also, several control variables are significant in the year of issuance to ROE, as shown in appendix II. The primary variable of interest is DA, and its changes are essential in relation to ROE. This is observable in South Africa and Egypt, where the statistically significant coefficients in the year of issuance are *-1.665* and *0.562*, respectively. On average, a one-unit change in DA leads to a negative change of *-1.665* and a positive change of *0.562* in ROE, respectively. These results are consistent with prior literature which document significant positive movement in DA before an SEO. This finding is supported by Christensen et al., (2017) who find that one unique attribute of EM is its positive correlation with returns before an SEO and a negative correlation with post-issuance

firm's future operating performance. Similarly, Roychowdhury et al. (2012) provide evidence that SEO overvaluation is more likely when managers actively engage in unclear channels to overstate earnings. There is a heightened propensity to employ REM and AEM during the SEO even if the consequences of doing so prove detrimental in the long run. Although the authors rely on returns surprises as a proxy for operating performance, their results mirror those established in this study. Also, SEO underperformance is also reported by Bilinski, Liu, and Strong (2012).

7.4.5 Robustness Tests

To better understand the effect of EM on the long-run performance of SEOs, a pooled regression is run for all the selected markets while considering firm-specific, industry and country-specific controls. The information is presented in Table 7.47, with the inclusion of firm and country-specific controls. Panel A and Panel B report the regression coefficients for ROA and ROE, respectively. The main variables of interest are DA, ROA, and ROE.

Table 7.47: Pooled Regression Results between EM and ROA/ROE in all the Selected Markets

PANEL A: Return on Asset							
	Years						
	Return on Asset						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	-0.007	0.379	0.226	0.176	-0.225	-0.147	-6.911
	(0.379)	(0.382)	(0.444)	(0.384)	(0.620)	(0.391)	(5.838)
DA	0.567	0.243	-0.291**	-0.116**	-0.361**	0.109	-4.559
	(0.367)	(0.369)	(0.429)	(0.371)	(0.599)	(0.377)	(5.640)
Lag_Q_YRLY	0.355**	0.364**	0.198	-0.425***	-0.708***	-0.085	-7.957***
	(0.151)	(0.152)	(0.177)	(0.153)	(0.247)	(0.156)	(2.325)
LOG_MKT_SIZE	-0.268	-1.004*	0.031	-0.412	-1.458	-0.939	-15.773*
	(0.577)	(0.580)	(0.674)	(0.583)	(0.942)	(0.594)	(8.871)
LOG_MKTCAP	0.047	0.068	0.192**	0.303***	0.687***	0.319***	4.093***
	(0.082)	(0.082)	(0.095)	(0.082)	(0.133)	(0.084)	(1.254)
ISSUEMKTCAP	-0.007	0.002	0.071	0.108	0.262	0.183*	0.801
	(0.100)	(0.101)	(0.117)	(0.101)	(0.164)	(0.103)	(1.540)
LEV	-0.093**	-0.277***	-0.137***	-0.066	-0.111	-0.034	0.657
	(0.045)	(0.045)	(0.052)	(0.045)	(0.073)	(0.046)	(0.687)

GDP	0.129	0.139	0.487	0.063	0.088	0.025	-0.983
	(0.392)	(0.394)	(0.459)	(0.397)	(0.641)	(0.404)	(6.033)
Country Dummies							
South Africa	-0.819	0.915	-0.369	-0.675	-0.361	-0.193	6.650
	(0.741)	(0.745)	(0.867)	(0.750)	(1.211)	(0.763)	(11.402)
Egypt	-2.656	-4.381*	0.406	-1.723	-3.824	-3.078	-42.930
	(2.409)	(2.423)	(2.817)	(2.437)	(3.936)	(2.481)	(37.067)
Tunisia	-0.587	-0.538	1.571	0.517	0.597	-0.277	-9.037
	(1.325)	(1.333)	(1.549)	(1.341)	(2.165)	(1.365)	(20.388)
Nigeria	3.652	4.028	2.115	1.516	1.655	-0.135	4.465
	(4.895)	(5.656)	(8.516)	(7.618)	(13.884)	(6.402)	-3.208
Morocco	-0.558	0.254	0.693	0.007	0.832	0.536	2.002
	(0.985)	(0.991)	(1.152)	(0.997)	(1.609)	(1.014)	(15.155)
Mauritius	-1.825	-2.733	-0.191	-2.458	-3.617	-2.358	-42.612
	(1.799)	(1.809)	(2.103)	(1.820)	(2.939)	(1.852)	(27.677)
Ghana	-0.598	-2.686	0.153	-1.226	-1.343	0.120	-24.465
	(2.158)	(2.170)	(2.524)	(2.184)	(3.526)	(2.223)	(33.208)
Kenya	-1.527	-5.063	0.720	-2.331	-9.290*	-6.731*	-84.205
	(3.393)	(3.412)	(3.967)	(3.433)	(5.543)	(3.494)	(52.203)
Constant	3.099	9.690	-1.793	3.166	11.429	7.681	150.341
	(5.955)	(5.989)	(6.963)	(6.025)	(9.729)	(6.133)	(91.629)
Observations	696	696	696	696	696	696	696
R-squared	0.037	0.085	0.035	0.046	0.063	0.043	0.032
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							
PANEL B: Return on Equity							
			Years				
	Return on Equity (ROE)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	0.423	0.026	-0.688	0.602	1.239	0.193	-6.911
	(0.861)	(0.994)	(1.497)	(1.339)	(2.441)	(1.126)	(5.838)
DA	0.701	0.699	-1.717**	-1.287**	0.380	1.054	-4.559**
	(0.831)	(0.960)	(1.446)	(1.294)	(2.358)	(1.087)	(5.640)
Lag_Q_YRLY	0.393	0.459	-0.041	0.595	0.895	0.112	-7.957***
	(0.343)	(0.396)	(0.596)	(0.533)	(0.972)	(0.448)	(2.325)
LOG_MKT_SIZE	1.434	0.115	0.304	-0.544	-0.844	-1.883	-15.773*
	(1.307)	(1.511)	(2.275)	(2.035)	(3.709)	(1.710)	(8.871)
LOG_MKTCAP	0.356*	0.516**	1.007***	0.662**	0.821	0.695***	4.093***
	(0.185)	(0.214)	(0.322)	(0.288)	(0.524)	(0.242)	(1.254)
ISSUEMKTCAP	0.090	0.168	0.301	0.206	0.388	0.513*	0.801
	(0.227)	(0.262)	(0.395)	(0.353)	(0.644)	(0.297)	(1.540)
LEV	-0.116	-0.696***	-0.901***	-0.535***	-1.941***	-0.348***	0.657
	(0.101)	(0.117)	(0.176)	(0.158)	(0.287)	(0.132)	(0.687)
GDP	0.234	0.283	0.593	-0.615	0.703	0.293	-0.983
	(0.889)	(1.028)	(1.547)	(1.384)	(2.522)	(1.163)	(6.033)

Country Dummies							
South Africa	-2.434	3.617*	-0.191	0.349	-0.981	-0.876	6.650
	(1.681)	(1.942)	(2.924)	(2.616)	(4.767)	(2.198)	(11.402)
Egypt	4.583	4.021	4.949	-0.100	-1.170	-6.777	-42.930
	(5.463)	(6.313)	(9.506)	(8.504)	(15.497)	(7.146)	(37.067)
Tunisia	4.738	6.711*	7.006	2.571	-2.409	-0.987	-9.037
	(3.005)	(3.472)	(5.228)	(4.677)	(8.524)	(3.931)	(20.388)
Nigeria	-0.598	-2.686	0.153	-1.226	-1.343	0.120	-24.465
	(2.158)	(2.170)	(2.524)	(2.184)	(3.526)	(2.223)	(33.208)
Morocco	0.884	5.219**	3.832	2.843	3.170	1.577	2.002
	(2.234)	(2.581)	(3.886)	(3.477)	(6.336)	(2.922)	(15.155)
Mauritius	2.238	2.541	-1.380	-2.665	1.238	-4.281	-42.612
	(4.079)	(4.714)	(7.098)	(6.350)	(11.571)	(5.336)	(27.677)
Ghana	6.482	5.027	3.403	0.616	2.755	-0.138	-24.465
	(4.895)	(5.656)	(8.516)	(7.618)	(13.884)	(6.402)	(33.208)
Kenya	8.718	4.280	4.188	-0.212	-8.404	-16.127	-84.205
	(7.694)	(8.891)	(13.387)	(11.976)	(21.825)	(10.064)	(52.203)
Constant	-17.607	-7.123	-7.888	-0.274	3.119	13.998	150.341
	(13.506)	(15.605)	(23.498)	(21.021)	(38.308)	(17.665)	(91.629)
Observations	696	696	696	696	696	696	696
R-squared	0.033	0.081	0.074	0.042	0.082	0.045	0.032
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

For Panel A, DA is significant in the prior year, during and after the SEO issuance. The inference is that DA (a proxy for EM) is statistically significant with respect to ROA in the years (*-1), (0)* and *(+1)*. This supports the hypothesis that EM has a statistically significant effect on firm performance in the long run. The same scenario applies in Panel B between DA and ROE in years (*-1)* and *(0).* Furthermore, the statistically significant coefficient of DA within the SEO issuance period possibly alludes to incidences of earnings manipulation as managers' tweak with the financial statements to create a positive image that appeals to SEO investors.

From the Table, two control variables notably; market capitalization and leverage stand out in terms of the level of significance, and this points to a significant relationship between SEO issuing firm performance and its market capitalization. The coefficient for market capitalization is positive in relation to ROA and ROE, which provides credible evidence that SEO performance

is largely influenced positively by its market capitalization. Regarding leverage, a negative coefficient is observed with ROA as well as ROE. This builds into the theory which presupposes that SEO firms are less reliant on debt compared to equity.

The level of significance of DA varies for the number of years before and post SEO issuance with significant activity observed between the year just before and post the SEO issuance. Evidence from the data analysis in the previous subsections shows that EM is statistically significant before the SEO issuance. However, in the year just preceding the SEO issuance, EM has a statistically significant effect on the long-run financial performance of the SEOs. This observation is largely valid in some sampled markets.

It is noteworthy that the effect of DA and EM on ROA is not statistically significant in the prior two years preceding the SEO issuance. During this period, it can be argued that firm management has not yet formulated its plan to issue SEO, and this is yet to be reflected in the financial statements. However, the relationship becomes statistically significant in the year preceding the SEO showing that the financial statements reflect the current management's decision to issue SEO. Moreover, the statistically significant relationship between EM and ROA as well as ROE extends to the year after the SEO issuance. These results are consistent with prior literature which strongly suggests that SEOs tend to underperform in the long run. From these findings, the null hypothesis stating that EM does not have a statistically significant effect on firm performance can be rejected and conclude that on average, EM has a statistically significant effect on firm long term performance.

7.4.6 Specification Tests

To test the suitability of the specification of the long-run model, the Sargan - Hansen's J statistic is used to determine the validity of the overidentifying restrictions in the GMM model. The test is critical in evaluating the validity of the parameters employed in the model. Furthermore, a test

for endogeneity using the Hausman test is also carried out. Summary specification tests are shown in Table 7.48.

Table 7.48: Summary of Specification Tests for the Long Run Model

Country	Hansen J Statistics Test	Endogeneity Test
South Africa	Hansen's J chi2(2) = .834255 (p = 0.6589)	GMM C statistic chi2(1) = .00383 (p = 0.9507)
Egypt	Hansen's J chi2(3) = .368078 (0.8319)	GMM C statistic chi2(1) = 1.80374 (p = 0.6139)
Tunisia	Hansen's J chi2(3) = .050417 (p = 0.9751)	GMM C statistic chi2(1) = .219132 (p = 0.6397)
Nigeria	Hansen's J chi2(3) = 3.74973 (p = 0.1534	GMM C statistic chi2(1) = .000781 (p = 0.9777)
Morocco	Hansen's J chi2(3) = .690929 (p = 0.7079)	GMM C statistic chi2(1) = 2.19912 (p = 0.1381)
Mauritius	Hansen's J chi2(3) = 1.34261 (p = 0.2648)	GMM C statistic chi2(1) = .122253 (p = 0.7266)
Ghana	Hansen's J chi2(3) = 4.7493 (p = 0.5110)	GMM C statistic chi2(1) = .200709 (p = 0.6541)
Kenya	Hansen's J chi2(3) = .173166 (p = 0.9171)	GMM C statistic chi2(1) = 1.07957 (p = 0.2988)

7.4.6.1 Test for Over Identifying Restrictions (Hansen J Statistic)

The additional instruments in the long-run model have over-identified the model to be over identified, enabling the test of over-identifying restrictions to be carried out. Since a GMM estimator has been employed in this model, Hansen's J statistics chi-squared test is reported. On average, the higher values of *p* compared to the test statistics obtained from the Hansen J statistic indicate that the model's instruments are not correlated with the error of the main regressors and therefore they are valid. Lower values for J for all the countries adduce evidence of the long-run model validity. There exists a relationship between DA and ROA and that the variables used in the model can be said to exogenous.

7.4.6.2 Test for Endogeneity (The C Difference in Sargan Statistic)

This test is carried out to determine whether endogenous regressors in the model are exogenous. In this test, the null hypothesis assumes that variables in the model are exogenous. On average, the *p* values are lower than the computed test statistic. The null hypothesis that states that variables in the model are exogenous is confirmed. Therefore, it is inferred that the variables in the long-run model are exogenous and uncorrelated.

7.4.5 Results Summary

This hypothesis sought to establish the effect of EM on long-run SEOs performance. The evidence shows that the effect is statistically significant in some markets but not for others. Additionally, the effect is more pronounced in the year preceding the SEO and the year after it. Considering the adverse effects of EM on SEO performance, this study further probes whether these effects can be mitigated by corporate governance with the results reported in hypothesis five.

7.5 Results Presentation and Discussion for Hypothesis Five

This section seeks to provide a detailed analysis of the results for the stated hypothesis, which is anchored on the theory that corporate governance plays a significant role in mitigating EM in SEOs.

7.5.1 Hypothesis Five Restatement

Hypothesis five seeks to address some of the pertinent issues surrounding EM. The question to what extent corporate governance can be used to mitigate EM in SEOs. The hypothesis is subsequently restated as follows:

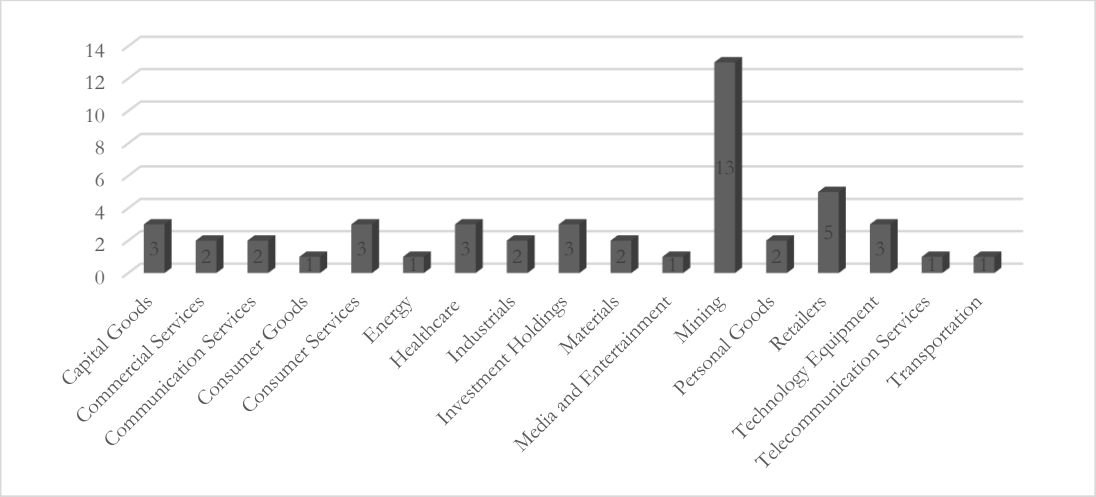
$H_0 =$ *There is no statistically significant relationship between corporate governance and EM in SEOs in select African securities markets.*

H_α *= There is a statistically significant relationship between corporate governance and EM in SEOs in select African securities markets.*

7.5.2 Descriptive Statistics

Figure 7.51 illustrates the general profile of sampled SEO firms that have required data variables on corporate governance. The Table consists of firms that have issued SEO for 11 years between 2008 and 2018. The variable specifications are those identified prior in the corporate governance model. These firms are all within South Africa. Partly, this is because of the country's more advanced governance index as well as a marked absence of published and verifiable data on SEO firms in other African securities markets.

Figure 7.51: Distribution of SEO Firms by Industry in South Africa



The mining industry shows the highest number of SEOs, followed by retailers and technology sectors. The data is consistent, given that mining is a capital intensive and significant industry in the country. Retail, capital goods and technology sectors follow closely. These sectors are deemed to be fast-growing and the issuance of SEO avails funds to finance their expansion.

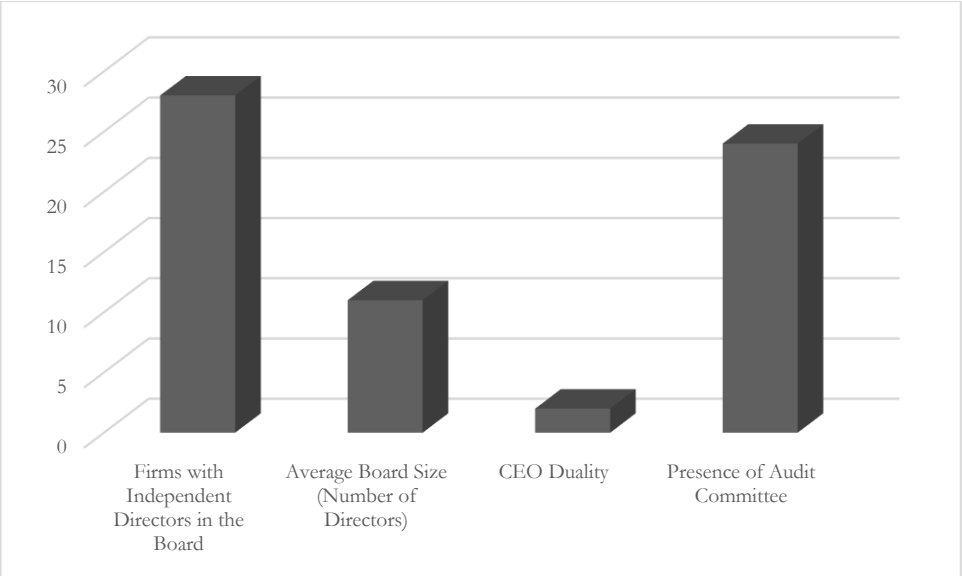
Table 7.51 is an exhibit of SEO firms in the sample. Cases of CEO duality (the chairman serving as the CEO) are less prevalent. It can be observed that the average number of directors for SEOs is 11.

Table 7.51: Board Characteristics of SEOs

Board Characteristics	No of Firms	% of Sampled SEO Firms
Firms with Independent Directors in the Board	28	43%
Average Board Size (Number of Directors)	11	17%
CEO Duality	2	3%
Presence of Audit Committee	24	37%

Most of the firms have independent directors on the board as well as a fully-fledged audit committee. This is expected since these firms are listed, and corporate governance adherence is largely stricter than in private firms. Figure 7.52 illustrates this information more vividly in graphical form.

Figure 7.52: Number of SEOs and their Board Characteristics



Several SEOs have a working audit committee and independent directors. Cases of CEO duality are fewer and far between attributable to enhanced corporate governance best practices. The sample taken into consideration is small due to missing data on these core corporate governance measures.

Table 7.52 displays the critical summary for variables used in the corporate governance model. The mean value is on average, *0.704*, making it closer to *1*. Therefore, it can be inferred that the firms under observation are more likely to engage in income increasing EM than the alternative. With regard to corporate governance best practices, many of the firms are recording an adherence to the rules.

Table 7.52: Summary of Corporate Governance and EM Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
DA_DMY	332	0.704	0.457	0	1
PINED	140	55.189	19.161	7	87.5
BDSize	140	11.515	2.568	4	17
CEO DUAL	144	0.021	0.143	0	1
AC	142	3.563	0.689	1	6
ROA	299	-7.826	106.759	-1822.77	51.81
DE	289	20.549	19.474	-26.99	151.31
BIG3	336	1	0	1	1
SIZE	289	20005.20	42401.30	0.093	313867
MB	315	6.752	51.508	0.059	864.34

The *PINED* value is 55.189% indicating on average, the proportion of independent non-executive directors is above the average 50% mark. The same interpretation can be extended to *AC*, where several SEOs exhibit the presence of an audit committee. The *MB* value has a mean of 6.752. On average, the market value is 6.752 higher than the book value indicating that these firms are growing firms where their valuation value is a couple of times higher than the book value.

Table 7.53 shows the correlation between corporate governance variables and EM. Notably, the variables *PINED*, *BDSize,* and *AC* are inversely correlated with *DA*. It is observable that the higher the values for corporate governance, the lower will be the value for EM whose dummy is *DA*. The value for *CEO DUAL* can be ignored because results ultimately show that several SEOs do not experience CEO duality.

Table 7.53: Matrix of Correlation for Corporate Governance Model Variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) DA_DMY	1.000								
(2) PINED	-0.042**	1.000							
(3) BDSize	-0.098*	-0.111	1.000						
(4) CEO_DUAL	-0.093	0.175	0.104	1.000					
(5) AC	-0.058	0.303	0.153	0.022*	1.000				
(6) ROA	0.083**	-0.009	0.366**	-0.005	0.075	1.000			
(7) DE	-0.038*	-0.013	-0.111	-0.005	0.115	0.048**	1.000		
(8) SIZE	-0.064	0.022	0.407	0.454*	0.258	0.052	-0.018	1.000	
(9) MB	-0.065	0.115*	0.163	-0.051	-0.039	0.006	-0.053	-0.034	1.000

Partly, these results support the hypothesis stating that the adoption of corporate governance best practices mitigates against EM. To ensure robustness, the pairwise correlation is also examined separately. The correlation between DA and the other variables remains insignificant.

7.5.3 Inferential Statistics

7.5.3.1 Corporate Governance against EM

This subsection examines whether the relationship between corporate governance measures and EM is statistically significant. The dependent variable is EM (DA used as a proxy) while the explanatory variables are the corporate governance variables. To provide a more accurate picture, a long-run period of three years before and after the SEO issuance is examined in relation to corporate governance measures.

Table 7.54 reports the coefficients on the corporate governance variables for the regression testing the relationship between corporate governance and EM. *CEO DUAL* is removed from the analysis because only a few firms have the characteristic. The observations range from the third year before the SEO *(-3)* to the third year after the SEO *(+3)* with the SEO year being year *(0).*

Table 7.54: Corporate Governance Key Measures against EM

	YEARS						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VARIABLES	DA (-3)	DA (-2)	DA (-1)	DA (0)	DA (+1)	DA (+2)	DA (+3)
PINED	-0.001	0.000	-0.002	-0.000	0.002	0.002	0.001
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
BDSize Dummy	-0.041	0.060	-0.068	0.069	0.045	-0.042	-0.023
	(0.070)	(0.077)	(0.058)	(0.076)	(0.055)	(0.066)	(0.058)
AC Dummy	0.052	-0.135	-0.126	-0.155	0.069	0.020	-0.347
	(0.161)	(0.175)	(0.132)	(0.099)	(0.125)	(0.151)	(0.133)
F_Size	-0.004	-0.001	0.006	0.013	-0.003	0.003	0.035
	(0.027)	(0.029)	(0.022)	(0.029)	(0.021)	(0.025)	(0.022)
DE	-0.001	-0.000	-0.003**	0.002	-0.000	-0.001	0.002

	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)
LEV	0.012*	-0.006	-0.002	-0.002	0.007	0.006	-0.007
	(0.006)	(0.007)	(0.005)	(0.007)	(0.005)	(0.006)	(0.005)
CAPEX	0.013	0.010	-0.000	-0.025	-0.015	-0.002	-0.003
	(0.028)	(0.031)	(0.023)	(0.031)	(0.022)	(0.027)	(0.024)
GDP	0.025	0.069***	-0.018	-0.016	0.009	-0.008	0.009
	(0.022)	(0.024)	(0.024)	(0.017)	0.009	-0.008	(0.018)
Observations	116	116	116	116	116	116	116
Robust standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

The *PINED* coefficient is insignificant across the years, showing that the presence of independent directors on the board of SEO firms does not have a significant effect on EM. Likewise, the coefficient of *BDSize* is insignificant. Consistent with Xie et al. (2003), the coefficient on *AC* is negative and in line with expectations that the presence of audit committee mitigates against EM.

On the same note, a consistent negative relationship emerges between *AC* and EM with *AC* is negative and statistically insignificant in the year before the SEO *(-1)* standing at *-0.126* in the Table. This shows that the presence of an audit committee is linked with lower levels of EM. In some years, a larger board size is linked with a lower value for EM while in others, there is a slightly positive relationship between board size and EM. Board size, therefore, exhibits a moderating effect on EM. However, its presence fails to mitigate against EM wholly suggesting that EM is generally pervasive in the year before the SEO issuance. This result contrasts prior findings that show the ability of board size to mitigate EM (Iqbal and Strong, 2010; Wong and Firth, 2010). Regarding control variables, the coefficient on DE is statistically significant in the year before the SEO. This result suggests that SEOs with high DE on average exhibit lower PINED and board size. Additionally, LEV does not portray a significant observable impact on EM.

In summary, the presence of independent directors, audit committee and a larger board size leads to lower levels of EM. However, still, EM is largely pervasive and these corporate governance measures fail to mitigate against it.

For robustness, corporate governance variables are examined against pooled DA to determine their effect on EM, which may not have emerged in Table 7.54. The results are presented in Table 7.55.

Table 7.55: Pooled Corporate Governance Key Measures against EM

VARIABLES	DA
PINED	-0.003**
	(0.002)
BD Size Dummy	-0.041
	(0.070)
AC Dummy	-0.052***
	(0.043)
F_Size	-0.058
	(0.043)
LEV	0.008*
	(0.010)
CAPEX	-0.029
	(0.045)
GDP	0.063*
	(0.036)
Observations	116
R-Squared	0.660

PINED and *AC dummy* are negative and statistically against EM for the pooled EM results showing that the presence of independent directors has a mitigating effect on EM. These measures are regarded to an extent a partially effective tool in mitigating against EM. *GDP* is also positive and economically significant, *albeit* by a lower economic margin.

7.5.3.1 Interaction Effects: Corporate Governance, EM, and Financial Performance.

To investigate the relationship between corporate governance, EM and financial performance, the variables for corporate governance are interacted with EM and the interaction term is included as an independent variable in the regression of EM and SEO performance. Since *BDSize* and *AC Dummy* report a negative and statistically significant relationship with DA, it is critical to examine whether each of them or a combination of the two mitigates against EM in SEOs.

Table 7.56 Panel A reports the coefficients between *PINED*, *DA* as well as the interaction variable denoted as *DA*PINED*. The panel contains three years with one year on either side of the SEO issuance year. The prior year before the SEO is denoted as *(-1)*, SEO year as *(+0)* and post SEO issuance year as *(+1)*.

Table 7.56: Interaction between PINED, Board Size, EM, and Financial Performance

Panel A			
	YEARS		
VARIABLES	**ROA (-1)**	**ROA(0)**	**ROA (+1)**
DA(-1)	14.472**		
	(6.196)		
PINED	-0.011	-0.013	0.002
	(0.008)	(0.047)	(0.005)
DA(-1)*PINED	-0.291**		
	(0.158)		
DA(0)		7.605	
		(7.568)	
DA(0)*PINED		-0.109	
		(0.134)	
DA (+1)			13.065*
			(7.293)
DA (+1)*PINED			-0.180
			(0.117)
Observations	113	113	113
Robust standard errors in parentheses			
***** p<0.01, ** p<0.05, * p<0.1**			

Panel B			
	YEARS		
VARIABLES	**ROA (-1)**	**ROA(0)**	**ROA (+1)**
DA(-1)	-18.522*		
	(9.719)		
BDSize	-0.066	-0.865	0.112
	(0.085)	(0.870)	(0.133)
DA(-1)*Board Size	1.718**		
	(0.781)		
DA(0)		-7.089	
		(23.620)	
DA(0)*Board Size		0.817	
		(2.052)	
DA (+1)			-3.934
			(11.575)
DA (+1)*BDSize			0.393
			(1.000)
Observations	113	113	113
Robust standard errors in parentheses			
***** p<0.01, ** p<0.05, * p<0.1**			

The variable DA (-1) is positive and statistically significant in the year preceding the issuance with higher levels of *DA* being linked with higher levels of *ROA*. Largely, this observation conforms to existing literature suggesting that managers' manipulation of earnings results in higher levels of profitability in the period preceding the SEO. The *PINED* variable is negative but statistically insignificant. This suggests that higher levels of proportional directors are directly linked with lower levels of managed earnings. However, EM is still pervasive for *PINED* to have any significant effect on it. The *DA*PINED* coefficient for the year before the SEO is negative and statistically significant. On average, the higher the value for *DA*PINED* the lower is the value for *ROA* and vice versa before the issuance of the *SEO* and this suggests that the presence of an independent board helps to mitigate EM in the year before the *SEO*. However, in the year after the SEO, the coefficient on *DA*PINED* remains negative but statistically

insignificant. Control variables have been computed and omitted in the interest of space and because they are insignificant.

To further decipher the corporate governance interaction effects, Table 7.56 Panel B, reports the interaction effects between DA, BDSize against ROA for the years *(-1)* to *(+1)*. Further, BDSize is included to explain further the relationship between corporate governance and SEO operating performance while controlling for EM.

There is a positive and statistically significant coefficient on the interaction term of *DA*BDSize* in the year *(-1)* which is the year just before the SEO issuance. The positive value indicates that the value of *DA* drops and the *ROA* becomes favourable when a firm has a larger BDSize. The control variables are already included in the model but not shown in the table in the interest of space.

The results in this hypothesis show that firms' adoption of corporate governance best practices mitigates against EM for SEOs. On average, the value of EM drops with a high value of corporate governance variables. Results also show that the coefficient between corporate governance measures and EM are significant in the year before the SEO issuance.

As per the extant literature, research on the relationship between corporate governance and EM has chiefly dwelt on developed Western markets and Asian emerging markets such as India, China, and Taiwan. As documented in prior literature, these countries may have different governance dynamics from those in South Africa. Also. Chi et al., (2015) observe that independent directors mitigate against EM. Similarly, the authors also observe that opportunistic EM is likely to drop when a firm has a robust governance mechanism in place.

With regards to corporate governance and financial performance, represented by DA*PINED and ROA, respectively, the coefficient is significant and negative before the SEO issuance. This suggests that investors are possibly interested in the control structure for firms issuing SEO. The

interest has a dampening effect on ROA as SEO firms manage their earnings more conservatively. Investor confidence is considered essential for a firm with a good ROA. Prior studies in other developed markets have highlighted the link between corporate governance and long-run performance and made similar assertions in line with the results in this hypothesis (see Dbouk and Ismail, 2010; Lo et al., 2010).

These findings reinforce the role of information asymmetry theory in SEOs. Corporate governance measures mitigate information asymmetry, reducing the likelihood of EM. However, in some cases, the magnitude of EM is too pervasive for corporate governance measures to have a significant impact on it. On agency theory, these findings suggest that corporate governance can potentially reduce agency costs by promoting transparency in the preparation of financial statements. These results are a basis for rejecting the null hypothesis stating that there is no statistically significant relationship between corporate governance and EM in SEOs.

7.5.5 Results Summary

Hypothesis five sought to establish whether corporate governance mitigates EM in SEOs. The findings show that adoption of best practices in corporate governance such as the proportion of independent directors, audit committee and non-CEO duality can potentially be regarded as a tool for mitigating EM in SEOs. Overall, the reliability of financial statements which instils investor confidence is dependent on corporate governance acting as a useful tool that mitigates and restricts management's ability to engage in EM. This finding is a basis for a further probe on whether managerial action affects the earnings quality of SEOs. This is further addressed in hypothesis six.

7.6 Results Presentation and Discussion for Hypothesis Six

This section seeks to provide a detailed analysis of the results from this hypothesis which is anchored on the presupposition that EM has an adverse effect on the earnings quality (hereafter referred to as EQ in this section) in the context of SEOs in African securities markets.

7.6.1 Hypothesis Six Restatement

Hypothesis six seeks to shed light on the significance of the effect of EM on the EQ of SEOs in selected African securities markets. The pertinent question is, to what extent does EM in SEOs influence EQ? The hypothesis is subsequently restated as follows:-

$H_0 =$ *EM does not have a statistically significant effect on earnings quality in SEOs in select African securities markets.*

H_α *= EM has a statistically significant effect on earnings quality in SEOs in African securities markets.*

7.6.2 Descriptive Statistics

Table 7.61 summarizes the variables used for six countries across African securities markets. DA and CFO are the variables of interest in examining the effect of EM on EQ. DA and CFO are proxies for EM and EQ, respectively. The median DA is computed as the midpoint between positive (income increasing) DA and negative (income decreasing) DA. CFO is largely dependent on the size of the country and falls in tandem with the size of the economy and the number of listed firms in each country. However, some countries with smaller samples such as Morocco and Mauritius report larger values for CFO due to a smaller sample of SEOs.

Table 7.61: Summary AEM and EQ Statistics in Selected Countries

Country	Variable	Obs	Mean	Std. Dev	Min	Max
South Africa	Median DA	159	0.01	0.04	-0.13	0.30
	PPE	153	20 333.31	43 587.43	0.31	313 867.00
	REV	150	12 477.08	24 608.93	-	147 920.00
	CFO	153	1 704.22	5 662.84	-2 244.50	42 405.00
	LEV	159	59.67	354.69	1.02	3 533.00
	PRCE TO BK RATIO	156	628.10	4 491.55	0.07	35 932.00
	GDP	159	0.02	0.01	-0.02	0.03
	INT RATE	159	3.46	0.77	2.21	5.78
	MKT_CAP (Log)	159	8.674	2.695	3.181	13.727
	IND. DMMY	159	0.77	0.42	-	1.00
Egypt	Median DA	96	-0.00	0.08	-0.52	0.23
	PPE	91	1 425.42	4 064.78	3.58	27 449.59
	REV	91	646.93	1 914.57	-	12 677.48
	CFO	91	71.05	293.80	-130.31	2 104.00
	LEV	93	4.90	19.11	1.02	185.40
	PRCE TO BK RATIO	93	344.22	1 620.64	0.25	10 080.04
	GDP	96	0.04	0.01	0.02	0.07
	INT RATE	96	1.12	3.03	-6.26	6.92
	MKT_CAP (Log)	96	5.417	1.803	0.432	10.179
	IND. DMMY	96	0.81	0.39	-	1.00
Tunisia	Median DA	60	-0.00	0.05	-0.31	0.09
	PPE	59	206.42	289.33	12.78	1 185.66
	REV	59	146.76	211.07	5.81	913.76
	CFO	59	15.94	41.84	-23.71	194.33
	LEV	60	10.76	32.61	1.08	150.47
	PRCE TO BK RATIO	60	28.96	105.13	0.69	595.01
	GDP	60	0.02	0.01	-0.02	0.04
	INT RATE	60	0.06	0.00	0.06	0.06
	MKT_CAP (Log)	60	4.690	1.340	2.826	7.778
	IND. DMMY	60	0.90	0.30	-	1.00
Morocco	Median DA	27	0.00	0.03	-0.10	0.08
	PPE	27	2 266.43	2 125.17	117.00	7 280.20
	REV	27	1 465.41	1 356.83	72.24	4 117.00
	CFO	27	161.61	296.61	-240.49	1 201.80
	LEV	27	2.94	1.43	1.53	6.29
	PRCE TO BK RATIO	27	2.78	1.93	0.97	8.08
	GDP	27	0.04	0.01	0.01	0.05
	INT RATE	27	0.04	0.01	0.03	0.05
	MKT_CAP (Log)	27	6.636	1.742	4.522	9.528
	IND. DMMY	27	0.78	0.42	-	1.00
Mauritius	Median DA	39	0.02	0.07	-0.03	0.32
	PPE	37	12 680.29	15 115.59	431.16	52 202.67
	REV	37	3 013.44	3 880.35	0.20	16 454.94

	CFO	37	179.03	228.16	-216.79	875.85
	LEV	39	3.27	2.58	1.00	12.99
	PRCE TO BK RATIO	39	0.77	0.32	0.23	1.94
	GDP	39	0.04	0.00	0.03	0.04
	INT RATE	39	6.77	1.08	5.58	9.97
	MKT_CAP (Log)	39	7.313	1.453	3.523	9.463
	IND. DMMY	39	0.54	0.51	-	1.00
Nigeria	Median DA	50	0.01	0.06	-0.21	0.17
	PPE	47	200 453.80	290 674.50	394.86	984 720.50
	REV	47	113 379.50	153 898.80	10.43	542 670.40
	CFO	47	16 236.03	54 210.07	-37 979.07	275 349.10
	LEV	50	4.36	4.31	1.26	27.04
	PRCE TO BK RATIO	50	32 934.67	130 505.30	0.22	587 290.30
	GDP	50	0.02	0.03	-0.02	0.08
	INT RATE	43	8.49	3.27	1.07	13.60
	MKT_CAP (Log)	50	9.251	2.866	5.216	15.132
	IND. DMMY	50	0.88	0.33	-	1.00

Table 7.62 reports the correlation between selected key variables across the sampled countries. With regards to our variables of interest, DA and CFO, a negative correlation is prevalent between them. In this case, the only exception, is Tunisia and Mauritius. Besides, their correlation values are marginal. DA is a measure for AEM.

Table 7.62: Correlation between Key EM and EQ Variables

COUNTRIES		**EQ VARIABLES**					
		DA	**PPE**	**REV**	**CFO**	**LEV**	**PRCE TO BK**
South Africa							
	DA	1					
	PPE	-0.187	1				
	REV	-0.17	0.866	1			
	CFO	-0.216**	0.925	0.842	1		
	LEV	0.114	0.022	-0.016	0.016	1	
	PRCE TO BK	0.056	0.196	0.117	0.044	0.023**	1
Egypt							
	DA	1					
	PPE	-0.0491	1				
	REV	-0.0476	0.9919	1			
	CFO	-0.0361**	0.7572	0.7705	1		
	LEV	-0.0365	0.7253	0.7125	0.177	1	
	PRCE TO BK	0.0257	0.345	0.2854	0.5037**	0.0098	1

Tunisia							
	DA	1					
	PPE	0.1629	1				
	REV	0.0955	0.7694	1			
	CFO	0.0952	0.7875	0.8612	1		
	LEV	-0.0571	-0.1317**	-0.0975	-0.1322	1	
	PRCE TO BK	0.1077	0.0937	0.146**	0.0617	-0.0277	1
Morocco							
	DA	1					
	PPE	-0.0832	1				
	REV	0.01	0.7801	1			
	CFO	-0.4815	0.6492	0.5748	1		
	LEV	0.2779**	0.0106	0.4055**	-0.0952	1	
	PRCE TO BK	0.1528	-0.2039	0.0557	-0.1827	0.535	1
Mauritius							
	DA	1					
	PPE	0.4252	1				
	REV	0.342	0.944**	1			
	CFO	0.1184	0.3163**	0.4666	1		
	LEV	-0.0177**	-0.0051	0.13	0.1091	1	
	PRCE TO BK	-0.0331	-0.1595	-0.069	0.2173	0.5128	1
Nigeria							
	DA	1					
	PPE	0.0153	1				
	REV	-0.2269**	0.772	1			
	CFO	-0.022	0.5392**	0.5158	1		
	LEV	0.112	0.2763	0.0272**	-0.1609	1	
	PRCE TO BK	0.0005**	0.3112	0.2802	-0.1454**	0.0243	1

As per the literature, CFO is mainly earnings managed through REM (Enomoto et al., 2015; Gao et al., 2017). Ordinarily, increased earnings should be reflected in increased CFO net of accruals adjustments. The positive correlations between CFO and REV reinforce this assertion. A negative correlation between DA and CFO is a possible indicator of increased levels of earnings which are not reflected in increased levels of CFO.

7.6.3 Inferential Statistics

To delve deeper into the effect of EM on EQ, DA is regressed against various firm-specific, industry-specific, country-specific, and macro-economic variables. The main variables of interest are DA (a proxy for EM) and CFO (a proxy for EQ).

Table 7.63 reports the regression results between EM and EQ variables. The dependent variables are CFO (0), and it is the lagged variable CFO (+1). These represent the CFO in the year of issuance for the former and CFO one year after the SEO for the latter. The explanatory variables are DA (-1) which is the value before the year of issuance and DA (0) in the year of the issuance. Various controls have been included in the model. The model employed is similar to one employed in another finding to estimate EQ (Lobo et al., 2012). An industry control variable in the model exhibits multicollinearity; hence, it has been dropped from the results.

Table 7.63: Regression Results between EM and EQ Variables

	SOUTH AFRICA		EGYPT	
VARIABLES	**CFO (0)**	**CFO (+1)**	**CFO (0)**	**CFO (+1)**
DA (-1)	-5.599**		-1.432**	
	(7.579)		(1.153)	
ΔREV	0.053	0.004	-0.095**	-0.091***
	(0.053)	(0.041)	(0.039)	(0.031)
TA	-0.057	-0.165***	0.028	0.053*
	(0.055)	(0.043)	(0.035)	(0.028)
PRICE TO BOOK RATIO	-0.091	0.619	-0.079	-0.619***
	(0.767)	(0.596)	(0.060)	(0.048)
LEV	0.858	-0.358	2.066**	-0.711
	(1.682)	(1.336)	(0.907)	(0.727)
INT_RATE	-4.652	6.666	0.505	1.133
	(5.699)	(4.897)	(2.410)	(1.914)
GDP	-1.070	2.254	9.018	-7.405
	(2.474)	(2.909)	(6.212)	(5.682)
DA (0)		-3.915		-2.726*
		(5.445)		(1.324)

Constant	3.088	7.848	-4.468	1.322***
	(2.599)	(1.879)	(4.234)	(3.715)
Observations	150	150	88	88
R-squared	0.044	0.171	0.430	0.867
	TUNISIA		**MOROCCO**	
VARIABLES	**CFO (0)**	**CFO (+1)**	**CFO (0)**	**CFO (+1)**
DA (+1)	-2.416**		-7.046**	
	(1.761)		(1.857)	
ΔREV	-0.037	0.175	-0.322	0.045
	(0.254)	(0.167)	(0.312)	(0.184)
TA	0.030	0.584***	-0.000	0.278**
	(0.194)	(0.121)	(0.170)	(0.092)
PRICE TO BOOK RATIO	-0.108	0.077	89.080	-77.260
	(0.177)	(0.113)	(178.250)	(104.269)
LEV	0.776	-0.269	-95.668	100.890
	(1.522)	(0.976)	(174.039)	(105.508)
INT_RATE	1.653	-1.933	4.423	2.659
	(4.191)	(2.325)	(8.851)	(5.132)
GDP	-1.012	8.955	4.744	-2.704
	(5.117)	(3.900)	(5.437)	(3.869)
DA (0)		-1.239**		-5.800
		(7.648)		(90.554)
Constant	-1.981	-4.578	-2.674	-6.237*
	(2.929)	(1.539)	(6.105)	(3.622)
Observations	59	59	27	27
R-squared	0.101	0.524	0.148	0.554
	MAURITIUS		**NIGERIA**	
	CFO (0)	CFO (+1)	CFO (0)	CFO (+1)
VARIABLES				
DA (+1)	-1.834**		-1.677	
	(0.513)		(2.841)	
ΔREV	0.072	-0.039	0.114	-0.139
	(0.044)	(0.037)	(0.204)	(0.109)
TA	-0.011	0.014*	-0.100	0.295***
	(0.009)	(0.007)	(0.187)	(0.088)
PRICE TO BOOK RATIO	-6.146	-1.036	-0.779	0.783
	(3.487)	(2.711)	(0.983)	(0.566)

LEV	-3.583	-2.591	3.453	-4.139
	(1.706)	(3.968)	(3.205)	(2.444)
INT_RATE	-	-	-2.072	1.895
			(1.129)	(2.217)
GDP	3.215	-1.994	-1.577	- 0.901**
	(3.778)	(2.799)	(1.908)	(1.253)
DA (0)	2.482	-3.570	-5.706	2.792**
	(1.988)	(1.520)	(2.877)	(3.212)
Constant		-2.289		-0.367**
		(2.271)		(1.739)
	-6.659	2.567	1.235	-1.663*
Observations	(5.341)	(5.634)	(1.282)	(4.526)
R-squared	37	37	41	41
	0.356	0.349	0.153	0.595
Standard errors in parentheses				
***** p<0.01, ** p<0.05, * p<0.1**				

Ideally, when the statements are of high EQ, accruals should map out into CFO within the next financial year or be convertible to cash in the next financial period or in the foreseeable future. Accruals that do not translate into cash within the foreseeable future lower the level of EQ of the financial statements. The coefficient for *DA (-1)* against *CF0 (0)* in South Africa is negative and significant at *-5.599* while for Egypt, it is *-1.432*. The negative sign demonstrates a negative relationship between EM and EQ, whose proxies in this model are DA and CFO, respectively. This confirms the hypothesis stating EM in financial statement impairs the quality of earnings. The same picture emerges in all the other sampled countries where all the coefficients are negative and significant, except for Nigeria, where it is insignificant, but the symbol remains the same.

The *DA (0)* coefficient is significant against *CFO (+1)* in all the markets except in Nigeria. The level of significance shows that these DAs are not translating into CFO as envisaged. This shows

that more than reasonable levels of accruals do exist which are not translating into cash flow, particularly in the year of issuance.

Also, several controls show some level of significance against CFO. The most notable one is the change in revenue (REV). Mainly, the effect in several markets is positive and significant. This confirms that revenues should translate into cash flows in subsequent financial periods. Besides, total assets (TA) are largely positive and significant showing that total assets have a measurable influence on the value of CFO. Ideally, this is expected as; accruals are part of the total recognized assets.

This hypothesis contributes to the literature on EM and EQ by shedding more light on the association between the two in the context of SEOs in African securities markets. On average, DA is significant at least in the year prior, during and after the SEO issuance concerning EQ. The evidence emerging from this study confirms the presupposition that the presence of EM in financial statements degrades EQ and consequently, the overall financial statement quality.

It is justifiable to reject the null hypothesis stating that there is no statistically significant relationship between EM and EQ in SEOs in African emerging markets. Ideally, EQ in the year before the issuance has a statistically significant effect on EM as observed in the analysis. This evidence is consistent with prior studies that show a similar association between EQ and EM (Chi et al., 2011; Lo 2008).

Overall, the information quality of financial statements is heavily dependent on the elimination of EM. The evidence shows that lower levels of EM improve the EQ of financial statements. Firms that face reduced levels of lower public scrutiny are more inclined to have upwards biased estimates of DA. In an ideal scenario, accruals should translate to CFO which is contrary to the

findings in this hypothesis. These findings show that on average, the EQ of SEOs is remarkably lower at the point of issuance, which suggests that earnings have been possibly managed during this event. Besides, being statistically significant, these results are economically significant. These findings are consistent with others that establish that SEOs EQ is likely to be lower, notwithstanding analyst coverage and public scrutiny during the SEO issuance. For instance, Ball and Shivakumar (2008) document that a high level of monitoring only marginally the level of earnings quality but in contrast, these findings in this chapter document that on average, SEO firms suffer from decreased EQ when the model controls for information asymmetry and corporate governance. Based on these results, it is a justifiable basis to reject the null hypothesis and conclude that on average, EM has a significant effect on the level of EQ in SEOs in selected African securities markets.

These findings are linked with the information asymmetry theory where EQ is on average impaired in SEOs and more particularly at the point of SEO issuance. Dissimilar level of information held between managers and investors contributes to lower EQ in financial statements which are subsequently used for decision making.

7.6.4 Robustness Test

To further examine the effect of EM on EQ, a pooled regression containing country dummies is run to control for country effects and the results are presented in Table 7.64 for all the combined countries.

Table 7.64: Pooled Regression Results between EM and EQ

VARIABLES	CFO (0)	CFO (+1)
DA (-1)	-0.599	
	-0.079	
ΔREV	0.053	0.004
	(0.053)	(0.041)
TA	-0.057	-0.165***
	(0.055)	(0.043)
PRICE TO BOOK RATIO	-0.091	0.619
	(0.767)	(0.596)
LEV	0.858	-0.358
	(1.682)	(1.336)
INT_RATE	-2.652	2.666
	(0.699)	(1.897)
GDP	-1.072	1.254
	(0.474)	(1.709)
DA (0)		-0.915
		(0.445)
Constant	0.171	-0.26
	(0.093)	(0.255)
Observations	151	151
R-squared	0.044	0.217
Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

The coefficient for the variables of interest which are DA and CFO remain negative like those of the individual countries. However, in this case, they are insignificant. This shows that the specific country effects vary and combining all the information to obtain pooled results does not adequately bring out differences in the specific countries' results. However, the value for total

assets (TA) remains significant, showing that there is a noticeable relationship between TA and CFO. Firms with higher levels of CFO tend to have a lower value of TA and vice versa.

7.6.5 Specification Test

The model controls for differences that are time-invariant and eliminates bias for omitted time-invariant characteristics such as managerial competence which may impact earnings quality. A Hausman test shows the *(prob. > chi2 =<0.05);* hence the model is valid. Furthermore, the study relies on a micro panel, therefore, eliminating the problem of cross dependence as well as the serial correlation among the variables. There may be a possibility of endogeneity between EM and EQ variables since some of the variables used to compute EM are also proxies for EQ such as CFO. However, this is minimized by controlling for firm-specific variables such as total assets, price to book ratio, leverage as well as using the instrumental variable approach to compute the coefficients. The REM proxy (CFO) has been omitted as a variable for EM because of the multicollinearity problem it poses with the EQ proxy, which is also CFO. Instead, in this case, the AEM proxy (DA) is used to measure how accurately DA maps into CFO.

7.6.6 Results Summary

The hypothesis tested sought to address whether EM has a statistically significant effect on earnings quality in SEOs with the results forming a basis for rejecting the null hypothesis. In summary, higher levels of EM reduce the quality of earnings and vice versa. This finding is the basis for a further probe on whether information asymmetry exacerbates EM, which is addressed in hypothesis seven.

7.7 Results Presentation and Discussion for Hypothesis Seven

This hypothesis examines the effect of information asymmetry on EM in SEOs in African securities markets.

7.7.1 Hypothesis Seven Restatement

Hypothesis seven seeks to shed more light on the link between information asymmetry and EM in SEOs. The pertinent issue is whether the presence of information asymmetry precipitates EM. The hypothesis is subsequently restated as follows:

H_0 = *Information asymmetry has no statistically significant relationship with EM in SEOs in select African securities markets*

H_α = *Information asymmetry has a statistically significant relationship with EM in SEOs in select African securities markets*

7.7.2 Descriptive Statistics

Table 7.71 summarizes the descriptive statistics for the variables used to estimate the relationship between information asymmetry and EM in six African countries. The variables of interest are the ABS and DA. The rest of the variables consist of firm-specific, industry-specific, and country-specific macro-level controls.

Table 7.71: Summary Statistics in Selected Countries

Country	Variable	Obs	Mean	Std. Dev	Min	Max
South Africa	DA	159	0.30	0.46	0.00	1.00
	BID ASK AVRG	141	49.87	97.38	0.95	783.88
	ABS	141	2.46	5.31	0.00	49.25
	PRICE TO BOOK	156	628	4491	0.07	35932.00
	LEV	159	59.67	354.69	1.02	3533.00
	MKT_CAP (Log)	159	8.674	2.695	3.181	13.727
	INTEREST RATE	159	3.46	0.77	2.21	5.78

	IND_DMMY	159	0.77	0.42	0.00	1.00
	ANLYST_COVG	150	4.99	5.88	0.00	19.00
Egypt	DA	96	0.21	0.41	0.00	1.00
	BID ASK AVRG	90	0.23	0.40	0.01	1.99
	ABS	90	4.05	5.05	-12.83	24.30
	PRICE TO BOOK	93	344.22	1620.64	0.25	10080.04
	LEV	93	4.90	19.11	1.02	185.40
	MKT_CAP (Log)	93	5.417	1.803	0.432	10.179
	INTEREST RATE	96	1.12	3.03	-6.26	6.92
	IND_DMMY	96	0.81	0.39	0.00	1.00
	ANLYST_COVG	15	0.93	1.58	0.00	5.00
Tunisia	DA	60	0.17	0.38	0.00	1.00
	BID ASK AVRG	60	0.79	2.10	0.01	9.86
	ABS	60	0.99	0.73	-0.17	4.00
	PRICE TO BOOK	60	28.96	105.13	0.69	595.01
	LEV	60	10.76	32.61	1.08	150.47
	MKT_CAP (Log)	60	4.690	1.340	2.826	7.778
	INTEREST RATE	60	0.06	0.00	0.06	0.06
	IND_DMMY	60	0.80	0.40	0.00	1.00
	ANLYST_COVG	44	0.91	0.47	0.00	2.00
Morocco	DA	27	0.22	0.42	0.00	1.00
	BID ASK AVRG	27	24.68	34.40	0.33	102.43
	ABS	27	2.34	4.48	0.01	22.44
	PRICE TO BOOK	27	2.78	1.93	0.97	8.08
	LEV	27	2.94	1.43	1.53	6.29
	MKT_CAP (Log)	27	6.636	1.742	4.522	9.528
	INTEREST RATE	27	0.04	0.01	0.03	0.05
	IND_DMMY	27	1.00	0.00	1.00	1.00
	ANLYST_COVG	27	3.41	5.27	0.00	15.00
Mauritius	DA	39	0.28	0.46	0.00	1.00
	BID ASK AVRG	39	1.44	1.65	0.05	8.30
	ABS	39	1.17	1.35	-1.07	7.59
	PRICE TO BOOK	39	0.77	0.32	0.23	1.94
	LEV	39	3.27	2.58	1.00	12.99
	MKT_CAP (Log)	39	7.313	1.453	3.523	9.463
	INTEREST RATE	39	6.77	1.08	5.58	9.97
	IND_DMMY	39	0.54	0.51	0.00	1.00
	ANLYST_COVG	15	1.27	0.88	0.00	2.00
Nigeria	DA	51	0.27	0.45	0.00	1.00
	BID ASK AVRG	42	0.87	1.30	0.01	5.71
	ABS	42	-0.44	10.31	-56.56	6.82
	PRICE TO BOOK	51	2.806	2.571	0.22	9.778
	LEV	51	4.49	4.36	1.26	27.04
	MKT_CAP (Log)	51	9.251	2.866	5.216	15.132
	INTEREST RATE	44	8.45	3.24	1.07	13.60
	IND_DMMY	51	0.88	0.33	0.00	1.00
	ANLYST_COVG	42	6.12	6.10	0.00	18.00

Table 7.72 reports the correlation coefficients between information asymmetry, EM, and selected control variables. The correlations between the variables are small enough and this exempts them from the problem of multicollinearity. On average, the Price to Book Ratio, GDP, LEV, and MKT CAP is positively correlated with DA. On the other hand, the interest rate is largely negatively correlated with DA. The main variable of interest is ABS.

Table 7.72: Correlation between Variables in Selected Countries

		DA	Av. BID ASK	ABS	PRICE TO BOOK	LEV	MKT CAP (Log)	IND DUMMY	INT RATE	GDP
SOUTH AFRICA	DA	1.000								
	AV. BID ASK	-0.047	1.000							
	ABS	0.161*	-0.091	1.000						
	PRICE TO BOOK	0.012*	-0.051	-0.041	1.000					
	LEV	0.083	0.029	-0.050	-0.023	1.000				
	MKT CAP (Log)	0.034	-0.011	-0.076	0.085	0.071	1.000			
	IND DUMMY	-0.012	-0.127	0.091*	0.072	0.086	0.134	1.000		
	INTEREST RATE	0.057	-0.046	-0.244	0.032	-0.056	0.148	-0.061	1.000	
	GDP	0.018	0.011	0.045	-0.047	0.105	-0.063	0.079	-0.419	1.000
EGYPT	DA	1.000								
	AV. BID ASK	-0.078	1.000							
	ABS	-0.168*	-0.285	1.000						
	PRICE TO BOOK	0.071	-0.118	0.042	1.000					
	LEV	0.186	0.158	-0.345	0.010	1.000				
	MKT CAP (Log)	0.044	0.056	0.189*	0.461	0.217	1.000			
	IND DUMMY	-0.016	-0.004	0.091	0.100	0.084	0.227	1.000		
	INTEREST RATE	-0.109	-0.114	0.047	-0.055	-0.160	-0.042	0.010	1.000	
	GDP	0.038	-0.077	0.180	0.019	0.049	0.003	0.026	0.084	1.000
TUNISIA	DA	1.000								
	AV. BID ASK	0.134	1.000							
	ABS	-0.160	-0.256	1.000						
	PRICE TO BOOK	0.072	-0.063	-0.067	1.000					
	LEV	0.095	-0.065	0.119	-0.028	1.000				

	MKT CAP (Log)	0.012	0.163	-0.141	0.281	-0.307	1.000			
	IND DUMMY	0.112	-0.288	0.045	0.123	0.128	-0.298	1.000		
	INTEREST RATE	-0.005	0.039	0.009	0.009	-0.138	0.063	-0.006	1.000	
	GDP	0.055	0.070	0.117	0.001	-0.132	0.122	-0.051	0.648	1.000
MOROCCO	DA	1.000								
	AV. BID ASK	-0.077	1.000							
	ABS	0.013*	-0.135	1.000						
	PRICE TO BOOK	0.020	0.525	-0.081	1.000					
	LEV	-0.015	-0.007	-0.089	0.535	1.000				
	MKT CAP (Log)	0.098	0.242	-0.164	0.541	0.202	1.000			
	IND DUMMY	-0.204	-0.024	0.011	-0.207	0.023	-0.137	1.000		
	INTEREST RATE	0.276	-0.002	-0.381	0.180	0.163	0.224	-0.097	1.000	
	GDP	-0.025	0.266	-0.515	0.315	0.127	0.293	-0.331	0.059	1.000
MAURITIUS	DA	1.000								
	AV. BID ASK	-0.168	1.000							
	ABS	-0.109*	-0.134	1.000						
	PRICE TO BOOK	0.066	-0.265	-0.000	1.000					
	LEV	0.098	-0.099	-0.197	0.513	1.000				
	MKT CAP (Log)	0.080	-0.157	0.026	-0.104	-0.379	1.000			
	IND DUMMY	-0.106	-0.015	0.001	-0.161	0.068	-0.212	1.000		
	INTEREST RATE	-0.072	-0.058	0.438	-0.060	-0.193	0.102	-0.094	1.000	
	GDP	0.091	-0.193	-0.253	0.204	0.139	0.001	-0.017	-0.391	1.000
NIGERIA	DA	1.000								
	AV. BID ASK	0.031	1.000							
	ABS	0.149*	0.171	1.000						
	PRICE TO BOOK	0.032	0.525	0.116	1.000					
	LEV	-0.006	-0.039	0.062	0.062	1.000				
	MKT CAP (Log)	0.002	0.711	0.143	0.350	0.125	1.000			
	IND DUMMY	0.088	0.246	0.388	0.323	0.176	0.364	1.000		
	INTEREST RATE	-0.051	0.024	0.170	-0.213	0.200	0.095	0.022	1.000	
	GDP	0.014	-0.229	-0.117	0.03 7	0.135	-0.031	-0.109	0.430	1.000

The largely positive correlation between Average Bid-Ask Spread and DA can be explained from the expectations that, on average, higher levels of information asymmetry (whose proxy is ABS)

leads to higher levels of DA and vice versa. The same inference corroborates related findings which posit that in the presence of high information asymmetry, the management can manage earnings to a higher degree than in the presence of low information asymmetry (Richardson, 2000). Except for Tunisia, the relationship between information asymmetry and EM is statistically significant in the rest of the sampled countries. This correlation lends credence to the asymmetry theory in SEO which posits that SEO investors and managers differ in the level of information accessible to each party.

Several variables are positively correlated while others are contrary. MKT CAP is positively correlated with DA. Consistent with prior literature (See, Basdekidou 2016; Hovakimian and Hu, 2016; Jiang and Lee, 2013), depicting the relationship between EM and firm size, large firms are likely to engage in EM while small firms with a smaller MKT CAP are likely to time the market when issuing SEO. The Price to Book ratio is positively correlated with DA. However, apart from South Africa, the other coefficients for selected countries are insignificant. Ideally, SEOs are likely to be growing firms and they more probably engage in EM to incentivize investors to participate in their SEO. The coefficient on interest rate is largely insignificant to DA. The insignificance can explain the minimal effect this macroeconomic variable has on EM. In particular, the interest and inflation rates, have no material effects on the management decision to engage in EM. Although the high-interest rate may make firms shy away from borrowing and push them to issue SEOs, the supposed relationship between the interest rate and DA is generally weak.

7.7.3 Inferential Statistics

Table 7.73 reports the results from the generalized least squares regression results for six countries. To address issues of endogeneity, GMM tests are conducted which yield similar results.

Table 7.73: Information Asymmetry Regression Outputs in Selected Countries

	COUNTRIES					
	South Africa	Egypt	Tunisia	Morocco	Mauritius	Nigeria
VARIABLES	DA(0)	DA(0)	DA(0)	DA(0)	DA(0)	DA(0)
ABS	0.014**	0.015*	0.087**	0.012**	-0.022	0.001***
	(0.008)	(0.009)	(0.069)	(0.027)	(0.074)	(0.009)
MKT CAP (Log)	0.006*	0.016**	-0.002*	0.025	0.021	-0.030
	(0.016)	(0.028)	(0.046)	(0.062)	(0.058)	(0.036)
PRICE TO BOOK	-0.025	0.022	0.033	-0.042*	0.059**	0.019
	(0.000)	(0.000)	(0.000)	(0.061)	(0.267)	(0.040)
IND_DMMY	0.022	-0.037	0.095	-0.223	-0.077	0.249
	(0.097)	(0.112)	(0.133)	(0.247)	(0.167)	(0.293)
LEV	-0.002**	-0.032***	0.004	0.023***	0.004	0.224**
	(0.001)	(0.015)	(0.012)	(0.022)	(0.001)	(0.002)
INTEREST RATE	0.006	-0.018	-39.335	20.776	-0.007	0.002
	(0.058)	(0.015)	(47.291)	(14.398)	(0.091)	(0.034)
MKT_SIZE / GDP	-0.146	1.511	8.709	-0.280	8.158	0.261
	(3.584)	(3.519)	(6.187)	(10.147)	(27.644)	(3.005)
Constant	0.173	0.183	2.230	-1.220	-0.305	-0.603
	(0.284)	(0.214)	(3.017)	(1.318)	(1.844)	(0.609)
Observations	141	87	48	27	39	36
Adjusted R^2	0.03	0.065	0.096	0.167	0.035	0.184
Standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

The variables of interest are ABS (explanatory variable) and DA (0) (dependent variable) as shown in the year of the SEO (year 0). The dependent variable is the DA Dummy extracted from the absolute values of DA, which are computed from the Jones Model. The Bid-Ask Spread (ABS) constitutes the proxy for information asymmetry. The coefficient of ABS is positive in all the sampled countries and significant in all the countries except Mauritius. This result shows that

ABS is positively linked with DA. The coefficients on ABS are *1.40%*, *1.15%*, *8.7%*, *1.12%*, *-2.2%* and *1%* for South Africa, Egypt, Tunisia, Morocco, Mauritius, and Nigeria respectively. The largely positive coefficients, except for Mauritius, which is insignificant, show that increases in ABS result in high levels of information asymmetry which, consequently, increases the chances that managers will engage in EM during the SEO issuance period. This observation is consistent with the information asymmetry theory, which assumes a disproportionate degree of information in the hands of managers compared to SEO investors. This is consistent with studies as discussed in the next paragraph, which shows a positive relationship between information asymmetry and EM.

The control variables are categorized into firm-specific (market capitalization, price to book ratio, CAPEX and LEV), industry level (industry dummy) and country-level controls (interest rate, GDP, and market size). The coefficient for MKT CAP is positive and significant in the top three markets with the highest number of SEOs. This corroborates literature which points out that smaller firms are likely to time the market while larger firms are more likely to engage in EM because of the leeway managers have over accruals as documented by Shu and Chiang., (2014). The coefficient on the price to book ratio is insignificant in several markets but significant in Morocco and Mauritius by a smaller margin which incrementally affects EM. This can be attributed to the smaller sample of SEOs chosen from these markets. The model controls for LEV, which is largely negative and significant. This illustrates that the firm-specific controls, price to book ratio and LEV, on average, have a significant relationship with EM when taking information asymmetry into account. The same observation can be extended to some of the macro-level control variables such as interest rate and market size to GDP.

Some studies corroborate these findings illustrating a positive and significant relationship between information asymmetry and EM. While examining the relationship between insider trading, information and discretionary accruals, Chowdhury et al. (2018), observe a three-way

interaction between insider trading, EM and asymmetric information. The authors posit that greater information asymmetry leads to greater insider trading, which results in higher levels of DA. Similarly, Cormier et al. (2013) point out to a noticeable relationship between information asymmetry and EM while considering different markets environmental complexity and dynamism. In this study, the results confirm this finding by documenting a significant relationship between information asymmetry and EM in emerging markets of Africa.

Consistent with these findings, Richardson (2000) tests the hypothesis of whether information asymmetry is a precondition to EM with the finding showing that high asymmetry of information possibly subjects' stakeholders to manipulated earnings. In alignment with the observation made earlier in the literature review, this author posits that stakeholders cannot discern altered earnings, hence this scenario precipitates EM. More importantly, these results show a statistically significant relationship between the extent of income increasing accruals manipulation and information asymmetry. In this study, evidence points out to a similar relationship between information asymmetry and EM in African emerging markets as compared to developed markets.

7.7.4 Interaction Effects between EM and Information Asymmetry

In the study, to further investigate the relationship between information asymmetry and EM and to ensure robustness, additional variables that affect information asymmetry are interacted together to examine their overall effect on EM. In addition to ABS, analyst coverage and financial sector development of participating African securities markets are included in the model and their effect examined against DA as shown in Table 7.64 as follows:-

Table 7.74: Interaction Effects between Information Asymmetry Variables

	COUNTRIES				
	South Africa	Egypt	Tunisia	Morocco	Mauritius
VARIABLES	DA(0)	DA(0)	DA(0)	DA(0)	DA(0)
ANLYST_COVG	-0.020	-0.045	-0.092	-0.092	-0.008
	(0.021)	(0.216)	(0.069)	(0.069)	(0.049)
FD	0.037**	0.026	0.109**	0.128	0.062**
	(0.199)	(0.349)	(0.757)	(0.757)	(0.652)
ANLYST_COVG *FD	0.013**	0.016**	0.2040*	0.4350*	0.07**
	(0.007)	(0.007)	(1.352)	(1.246)	(0.087)
MKT CAP (Log)	-0.001	0.010	0.030	0.030	-0.115
	(0.019)	(0.057)	(0.087)	(0.087)	(0.180)
PRICE TO BOOK	0.000	0.001	0.029	0.029	0.031
	(0.000)	(0.001)	(0.095)	(0.095)	(0.083)
IND_DMMY	-0.030	0.004	0.370	0.370	0.431
	(0.107)	(0.202)	(0.640)	(0.640)	(0.569)
INTEREST RATE	-0.005	-82.752	7.225	7.225	0.019
	(0.061)	(0.183)	(1.359)	(1.359)	(0.047)
LEV	0.004**	1.233**	0.344**	0.445	0.632**
	(0.006)	(0.002)	(1.392)	(1.046)	(0.087)
MKT_SIZE /GDP	0.1223	1.572	-1.082	-1.821	1.085
	(0.610)	(1.314)	(1.084)	(1.833)	(0.026)
Constant	0.151	4.249	1.258	1.258	0.490
	(0.364)	(5.085)	(1.657)	(1.657)	(1.464)
Observations	150	38	27	27	37
Standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

Ideally, SEO firms that receive extensive analyst coverage experience lower incidences of EM. Moreover, firms in countries with a higher level of financial sector development are likely to experience a higher level of regulatory control in the preparation of their financial statements. Therefore, this forms the basis for the inclusion of analyst coverage and level of country financial sector development (FD) as additional independent proxies for information asymmetry interacted with DA as the dependent variable. There is a positive coefficient between FD and DA for all the countries, however, the coefficient is low for South Africa showing that a higher level of FD

impacts on DA albeit to a marginal extent. For the other countries, the coefficient is higher and significant with the exception Egypt and Morocco which are insignificant. Theory presupposes that a higher FD should result in lower levels of DA, but this is not observable from the results in the Table. This can be attributed to higher levels of information asymmetry in African securities markets. Firm-specific, industry-specific, and country-specific control variables are included in the model. The coefficient for analyst coverage is negative and insignificant. On average, when a firm is subjected to a higher level of analyst coverage, the level of EM falls. This is consistent with prior findings which report that the level of EM falls in a firm with higher levels of investor exposure as proxied by analyst coverage. For example, Degeorge et al. (2013) establish that analyst coverage is associated with a reduction of EM in upper FD indexed countries compared to those countries with a lower FD level.

According to OECD (2018), South Africa has a higher FD index in comparison with other countries. The coefficient for FD in South Africa from the results in Table 7.74 is positive and significant in South Africa. It can be inferred that being in a higher level FD country, for South Africa, does not preclude the firms in South Africa from engaging in EM. Since studies done in developed markets still show SEOs engage in EM, we conclude that SEOs in emerging African securities markets will probably engage in EM *albeit* by a higher margin because of the lower FD index. This is reported in the Table where coefficients for the rest of the countries are largely positive and significant with respect to the middle level of FD. The coefficients are *2.06%*, *10.9%*, *1.28%* and *6.2%* for Egypt, Tunisia, Morocco, and Mauritius, respectively. A positive coefficient change in FD results to an increase in the EM. It can, therefore, be inferred that firms resident in a country with a lower FD index experience EM by a greater margin of *10.9%* and *6.2%* in Tunisia and Mauritius respectively compared to *3.7%* for South Africa which has a higher FD index.

The first pair of interaction terms is analyst coverage and FD index as the independent variables against EM as the dependent variable in South Africa. The coefficient of the interaction term is positive and significant, albeit by a small margin of *1.3%*. Although analyst coverage does deter EM, when it is paired against firms in a higher FD indexed country like South Africa, the deterrence is still not large enough to eliminate EM with evidence showing it is pervasive. The second interacting terms are analyst coverage and FD indexes for the rest of the countries. All the coefficients are positive and statistically significant against EM. From the results, it can be inferred that analyst coverage in countries with higher FD indexes does not deter EM. More importantly, it exacerbates the level of EM as reported by the interaction coefficients which are progressively bigger in countries with a lower FD index at *1.6%, 20.4, 43.5%,* and *7%* for Egypt, Tunisia, Morocco, and Mauritius. On average, lower levels of analyst coverage lead to a lower opacity level in middle FD, therefore, exacerbating the level of EM. This corroborates a prior finding by Yu, (2008) which establishes that analyst coverage is negatively related to EM. Higher levels of analyst coverage create a better information environment for firms and lead to less asymmetric information between managers and SEO investors. Chan and Chan (2014) and Ginglinger, Matsoukis and Riva (2013) do espouse similar findings. Among the control variables, *LEV* stands out with a positive and statistically significant effect on EM for all the countries except in Morocco. Consistent with Lazzem and Jilani (2017) leverage in SEOs provides the incentive for managers to engage in EM. The rest of the control variables are largely insignificant.

In summary, this hypothesis sought to establish whether there is a statistically significant relationship between information asymmetry and EM in SEOs with tests from sampled countries showing evidence of a statistically and economically significant relationship. Thus, it is, justifiable to reject the null hypothesis which states that there is no statistically significant relationship between information asymmetry and EM in SEOs. To ensure the robustness of these findings, analyst coverage and FD are employed as additional proxies of information asymmetry.

7.7.5 Specification Tests

The panel data used to test this hypothesis does not suffer from the cross-sectional dependence problem and serial correlation associated with large macro panels with a long time series. This precludes the need to carry out the Breusch Pagan test and Lagrange Multiplier test. In this study, the problem is eliminated because the panel used is a micro one with only a few years with each year having a large number of cases as suggested by Arellano (2010). The Hausman test indicates indifference between fixed effects and random effects model for this study since they yield exact results.

7.7.6 Results Summary

Hypothesis seven sought to establish whether information asymmetry has a statistically significant effect on EM in SEOs, and the results confirm the same. Reasonably, it can be concluded that the presence of information asymmetry in SEOs in African emerging markets does indeed have an impact on the level of EM in SEOs. At face value, EM is more prevalent in middle FD countries than in upper FD countries.

CHAPTER EIGHT

CONCLUSION, POLICY IMPLICATION AND RECOMMENDATION

8.1 Introduction

This study embarks on examining the effects of earnings management (EM) on financial performance in SEOs in select African emerging securities markets. The study is broken down into various critical components of EM, such as real earnings management (REM) and accrued earnings management (AEM). The financial performance of SEOs is also examined separately both in the short run and in the long run. The main context being twelve emerging markets in Africa with a focus on those countries with more developed securities markets. Firm-level data is obtained for each country while excluding financial institutions. System GMM, instrumental variables techniques, multi-level regression, as well as interaction terms, are used to examine effects. This study brings forth several findings that are enumerated in the following subsections in this chapter.

8.2 Theoretical Conclusion and Contribution

This study is anchored on three fundamental theories, namely, information asymmetry theory, agency theory and signalling theory. It also makes limited contact with the market timing theory. In this research, the findings provide additional evidence in support of information asymmetry theory. The previous chapter delves into the impactful role information asymmetry plays in exacerbating EM. The results confirm that the presence of information asymmetry is detrimental to SEO investors and mitigation techniques such as the adoption of corporate governance best practices and analyst coverage do play a critical role in bridging the information gap between managers and SEO investors. In this study, as earlier hypothesized, the evidence emerging suggests that EM is double-sided. It acts both as a precursor and an attribute to information asymmetry.

Besides, the traditional agency theory manifests itself in this study. Managers who engage in EM do so at their behest to maximize SEO uptake through optimistic and inflated earnings. In this study, the findings focus on the presence and extent of EM, and thus support the existence of this theory. Emerging evidence on the strength of mitigation measures against EM provides new information on how managerial agency issues can be solved in the context of SEOs. Furthermore, the research output from this study indicates there is a connection between information asymmetry and agency theories. At the onset of this study, such a connection was envisaged to be spurious. However, emerging evidence regarding EM shows that these two theories work in tandem to exacerbate EM and lower the earnings quality of financial statements.

Earnings fluctuations around the period of SEO issuance lends credence to the signalling theory. In this study, the findings show that earnings spike precede SEO issuance. Investors can interpret this information to determine whether firms are likely to issue an SEO in the foreseeable future. Deteriorating long term financial performance for the same firm is a signal that investors can either opt-out in the short run or withstand a longer run duration to recoup their investments.

8.3 Empirical Findings and Contribution

Firstly, this study primarily seeks to examine the presence and extent of EM in African emerging markets as well as their financial performance in the short and long run. Indeed, findings satisfy this objective. At the onset of this study, the link between EM and the financial performance of SEO performance remained unanswered. Now a clear nexus between EM and SEOs has been established in the context of African securities markets. Emerging evidence shows it is difficult to disentangle the EM and its presence in these firms. Moreover, as earlier envisaged, the financial performance of SEOs deteriorates in the long-run.

In this study, one of the overriding questions at the inception of this research was why findings in other studies done in other global emerging markets cannot be adopted and replicated to answer the research questions in this study. This is impossible due to unique attributes in African securities markets that differentiate them from those in other countries, as previously discussed in previous chapters. These can be summarized as the role of institutional investors, asymmetries in information between stakeholders, higher levels of market opacity and peculiar ownership structures of SEOs. Although some of the results from this study do conform to prior findings, such as confirmation of the presence of EM, this study brings to the fore additional knowledge propping up a more direct link between EM and the performance of SEOs.

Another anomaly earlier identified in this study showing the underperformance of SEOs has been further addressed. The question was why growing firms with good financial prospects that have been able to attract investor funds by SEO issuance would subsequently report operating underperformance post-issuance. Although the reasons vary, this study has attempted to give some of the answers by establishing the presence and extent of EM in SEOs in the context of Africa. In African markets, EM has been identified as the norm rather than the exception.

Secondly, this study relies on the latest emerging financial data on SEO issuance. African markets are continuously growing and expanding. This study would not have been comprehensively undertaken a few years ago, but going forward, the data available will be reason enough to undertake credible research. Although studies have been done in the areas of EM both in developed and emerging markets, to the best of my knowledge, this is among the few which have attempted to establish a clear link between EM and financial performance of SEOs in Africa.

Thirdly, this study has sought to disentangle EM into REM and AEM. Traditionally, AEM has been used as the measure of EM but newer emerging studies and among them this one,

acknowledges REM as the vital source of EM. In this study, analysis has been done to examine the nexus between the two forms of EM and their subsequent effect on SEOs financial performance. Moreover, this study has attempted to address the role that corporate governance plays in mitigating EM. Emerging information suggests that the adoption of corporate governance best practices contributes to decreased levels of EM. Furthermore, this study has tried to fill the knowledge gap on the role EM plays in determining the earnings quality (EQ) of SEOs.

Lastly, one of the emerging contemporary issues in corporate finance is the role of information asymmetry in corporate financial events. The literature examined in prior chapters has shown that in Africa, financial transparency is remarkably low and lags behind other developed markets. This study has attempted to provide empirical evidence on the link between information asymmetry in the context of SEOs and its impact on managerial decision to engage in EM. A clear link has been drawn on the level of financial sector development (FD) as determined by the World Bank and the prevalence of EM in African countries.

8.4 Policy Implication

Common knowledge dictates that financial regulation always trails adverse managerial actions. Once managerial actions become detrimental to investors, that is the point in which regulators play catch up in formulating regulatory standards to protect investors. This study seeks to fill existing knowledge gaps in EM. Emerging information that has highlighted the presence and extent of EM in SEOs is useful in guiding regulators in crafting standards and best practices that mitigate against EM. Examples of proposed standards would include a limitation to the recognition of accruals as income and limiting incidences of managers making charges against income to reduce assets to lower expenses in the future. These practices are colloquially referred to as “big baths.”

This study sheds light on SEO financial events in the short run and long term for several SEOs. One of the main objectives was to determine financial performance within announcement dates and three years' post-issuance. This information is critical in contemplating incidences of earnings surprises that investors can utilize in making decisions. On the other hand, findings from this study can assist interested parties in distinguishing between earnings surprises and optimistic financial reporting.

8.5 Study Limitation

Commonly, existing literature has used discretionary accruals (DA) as a proxy for EM. Primarily, this study has done the same. Although it has made attempts to dissect EM into its two main forms (REM and AEM), the role of REM remains unclear as information available on SEO firm events is insufficient to establish its role. However, as more and more issuances are undertaken, it will be possible to undertake a more comprehensive study.

On the one hand, the emerging trend shows that managers are increasingly shying away from AEM as regulations and standards become stricter. In contrast, REM is a fertile ground for engaging in EM since actual managerial actions such as disposal of assets, R&D costs amortization and discretionary expenditure are more challenging to monitor.

This study primarily relied on secondary financial data and where unavailable, specific firm financial reports. With emerging evidence questioning the veracity of these statements and even extending to the audited ones, the findings in this study are still anchored on the content of these financial statements. Until evidence emerges to the contrary, the contents of these reports are taken to be an accurate representation of the company affairs. It is also critical to acknowledge that African securities markets are generally illiquid compared to other developed markets

globally therefore impacting the study since returns have been employed as a variable. Furthermore, firms with missing and incomplete data have been dropped from the data set. This inevitably introduces potential for survivorship biases.

8.6 Recommendation for Further Research

For a study to be effective, it is advisable to narrow down on an identified trajectory rather than try to fill knowledge gaps more broadly. Primarily, this study attempts to build on existing literature on the area of EM and firm performance in the context of SEOs. However, during this research, several offshoot knowledge areas remain unaddressed.

Firstly, an empirical contrast between SEO and IPO issuing firms may need to be undertaken to provide information about whether SEO characteristics replicate those in IPO or whether these two key firm events can be considered stand-alone. The information would be critical for investors and regulators who have a stake in these firm investors.

Secondly, this study focuses more on the firm transaction aspects such as SEO issuance but has only lightly covered ground through a literature review on the role of institutional investors on EM characteristics of SEOs. Since studies exist which show that institutional investors have an impact on managerial activities, it would be interesting to investigate the nexus between them and firm events. This can also be extended to the impact of institutional investors on firm financial performance in the context of African emerging markets.

The financial news has recently been awash with news on various underhand financial reporting misdemeanours in listed companies that are undermining shareholder value. EM, by its nature, does not amount to fraud since it involves adjustments of accruals and timing of firm activities. These activities fall within the existing regulatory financial reporting frameworks. However, EM

naturally precedes creative accounting, and it would be interesting to uncover the scope where one becomes the other and aid regulators in drawing a line. This area of study remains topical and future research building on it would come in handy for the benefit of corporate finance existing knowledge.

Lastly, information asymmetry remains a large topical issue with areas that remain unaddressed by this study. Examples include the role of lock-up agreements in SEOs. Although the literature on this has been examined in the study, there is a need for further empirical evidence. With more SEO being continuously issued as the African markets grow, it would be imperative to establish whether these covenants are beneficial to underwriters, managers, and investors at large.

REFERENCES

Abdelghany, K. (2005). Measuring the quality of earnings. *Managerial Auditing Journal*, *20*(9), 1001–1015.

Abraham, R., & Harrington, C. (2011). Seasoned equity offerings: Characteristics of firms. *International Journal of Business, Humanities and Technology*, *1*(3), 26–33.

Adiguzel, H. (2013). Corporate Governance, Family Ownership and Earnings Management: Emerging Market Evidence. *Accounting and Finance Research*, *2*(4), 17–33. https://doi.org/10.5430/afr.v2n4p17

Adut, D., Holder, A. D., & Robin, A. (2013). Predictive versus opportunistic earnings management, executive compensation, and firm performance. *Journal of Accounting and Public Policy*, *32*(3), 126–146. https://doi.org/10.1016/j.jaccpubpol.2013.02.007

Aflatooni, A., & Nikbakht, Z. (2009). Income smoothing,real earnings management and long-run stock returns. *Business Intelligence Journal*, 55–73.

Agrawal, A., Mohanty, P., & Totala, N. K. (2019). Does EVA Beat ROA and ROE in Explaining the Stock Returns in Indian Scenario? An Evidence Using Mixed Effects Panel Data Regression Model. *Management and Labour Studies*, *44*(2), 103–134. https://doi.org/10.1177/0258042x19832397

Ahmad, W., & Jelic, R. (2014). Lockup Agreements and Survival of UK IPOs. *Journal of Business Finance and Accounting*, *41*(5–6), 717–742. https://doi.org/10.1111/jbfa.12068

Ajina, A., & Habib, A. (2017). Examining the relationship between earning management and market liquidity. *Research in International Business and Finance*, *42*(October 2016), 1164–1172. https://doi.org/10.1016/j.ribaf.2017.07.054

Ajit, D., Malik, S., & Verma, V. K. (2013). *Earnings Management in India*. Mumbai, India.

Al Nasser, O. M., & Hajilee, M. (2016). Integration of emerging stock markets with global stock markets. *Research in International Business and Finance*, *36*, 1–12.

Alagidede, P. (2011). Return behaviour in Africa's emerging equity markets. *Quarterly Review of Economics and Finance*, *51*(2), 133–140. https://doi.org/10.1016/j.qref.2011.01.004

Algharaballi, E., & Albuloushi, S. (2008). Evaluating the specification and power of discretionary accruals models in Kuwait. *Journal of Derivatives & Hedge Funds*, *14*(3/4), 251–264. https://doi.org/10.1057/jdhf.2008.23

Ali, A., & Zhang, W. (2015). CEO tenure and earnings management. *Journal of Accounting and Economics*, *59*(1), 60–79. https://doi.org/10.1016/j.jacceco.2014.11.004

Allen, D. E., & Soucik, V. (2008). Long-run underperformance of seasoned equity offerings: Fact or an illusion? *Mathematics and Computers in Simulation*, *78*(2–3), 146–154. https://doi.org/10.1016/j.matcom.2008.01.034

Allen, F., Otchere, I., & Senbet, L. W. (2011). African financial systems: A review. *Review of Development Finance*, *1*(2), 79–113. https://doi.org/10.1016/j.rdf.2011.03.003

Alves, S. (2012). Ownership structure and earnings management Evidence from Portugal. *Australian Accounting Business and Finance Journal*, *6*(1), 57–74. https://doi.org/10.5539/ijbm.v7n15p88

Aly, D., & Hussainey, K. (2010). Determinants of corporate internet reporting: evidence from Egypt. *Managerial Auditing Journal*, *25*(2), 182–202. https://doi.org/10.1108/MBE-09-2016-0047

Ardekani, A. M., Younesi, N., & Hashemijoo, M. (2012). Acquisition , Earnings Management and Firm ' s Performance : Evidence from Malaysia. *Journal of Business Studies Quaterly*, *4*(1), 91–110.

Arellano, M. (2010). *Panel Data Econometrics*. (M. Arellano, I. Guido, G. E. Mizon, & M. Watson, Eds.) (4TH ed.). Oxford.

Armstrong, C. S., Core, J. E., Taylor, D. J., & Verrecchia, R. E. (2011). When Does Information Asymmetry Affect the Cost of Capital? *Journal of Accounting Research*, *49*(1), 1–40. https://doi.org/10.1111/j.1475-679X.2010.00391.x

Asay, H. S., Libby, R., & Rennekamp, K. (2013). Do Features that Associate Managers with a Message Magnify Investors' Reactions to Narrative Disclosures?, (December), 1–36. https://doi.org/10.1017/CBO9781107415324.004

Ashbaugh-Skaife, H., Collins, D. W., Kinney, W. R., & LaFond, R. (2008). The effect of SOX internal control deficiencies and their remediation on accrual quality. *Accounting Review*, *83*(1), 217–250. https://doi.org/10.2308/accr.2008.83.1.217

Asongu, S. A. (2012). Government Quality Determinants of Stock Market Performance in African Countries. *Journal of African Business*, *13*(3), 183–199. https://doi.org/10.1080/15228916.2012.727744

Astami, E., Rusmin, R., Hartadi, B., & Evans, J. (2017). The role of audit quality and culture influence on earnings management in companies with excessive free cash flow: Evidence from the Asia-Pacific region. *International Journal of Accounting and Information Management*, *25*(1), 21–42. https://doi.org/10.1108/MBE-09-2016-0047

Autore, D. M., Bray, D. E., & Peterson, D. R. (2009). Intended use of proceeds and the long-run performance of seasoned equity issuers. *Journal of Corporate Finance*, *15*(3), 358–367. https://doi.org/10.1016/j.jcorpfin.2008.12.003

Autore, D. M., & Kovacs, T. (2010). Equity issues and temporal variation in information asymmetry. *Journal of Banking and Finance*, *34*(1), 12–23. https://doi.org/10.1016/j.jbankfin.2009.06.016

B., E. E., Masulis, R. W., & Norli, O. (1999). Seasoned public offerings: resolutions of the new issues puzzle. *Journal of Financial Economics*, *56*(4), 251–291.

Ball, R. (2013). Accounting informs investors and earnings management is rife: Two questionable beliefs. *Accounting Horizons*, *27*(4), 847–853. https://doi.org/10.2308/acch-10366

Ball, R., & Shivakumar, L. (2008). Earnings quality at initial public offerings. *Journal of Accounting and Economics*, *45*(2–3), 324–349. https://doi.org/10.1016/j.jacceco.2007.12.001

Bao, S. R., & Lewellyn, K. B. (2017). Ownership structure and earnings management in emerging markets—An institutionalized agency perspective. *International Business Review*, *26*(5), 828–838. https://doi.org/10.1016/j.ibusrev.2017.02.002

Bardos, K. S., Golec, J., & Harding, J. P. (2011). Do investors see through mistakes in reported earnings? *Journal of Financial and Quantitative Analysis*, *46*(6), 1917–1946. https://doi.org/10.1017/S0022109011000470

Baryeh, L. (2012). Contrarian insider trading and earnings management around seasoned equity offerings; SEOs. *Journal of Finance & Accountancy*, *11*, 29–35.

Basdekidou, V. A. (2016). Seasoned Equity Offerings as Technical Market Anomalies: Long-Term Temporal Trading Functionalities. *International Journal of Economics and Finance*, *9*(1), 96. https://doi.org/10.5539/ijef.v9n1p96

Bayless, M., & Jay, N. (2013). What motivates seasoned equity offerings? Evidence from the use of issue proceeds. *Managerial Finance*, *39*(3), 251–271. https://doi.org/10.1108/JHOM-09-2016-0165

Bello, M., Kurfi, A., Adepoju, B., & Bambale, A. (2016). Corporate Governance and the Performance of Seasoned Equity Offering Firms in Nigeria: The Mediating Effect of Agency Costs. *Journal of Finance and Accounting*, *4*(3), 14. https://doi.org/10.11648/j.jfa.20160403.13

Ben Rejeb, A., & Boughrara, A. (2013). Financial liberalization and stock markets efficiency: New evidence from emerging economies. *Emerging Markets Review*, *17*, 186–208. https://doi.org/10.1016/j.ememar.2013.09.001

Berk, J. B., DeMarzo, P., & Harford, J. (2011). *Fundamentals of Corporate Finance*. *Journal of Chemical Information and Modeling* (Vol. 53). https://doi.org/10.1017/CBO9781107415324.004

Beslic, I., Beslic, D., Jaksic, D., Andric, M., & Jackson, A. B. (2015). Testing the models for detection of earnings management. *Journal of Accounting, Finance and Business Studies*, *1*(4), 55–79. https://doi.org/10.1111/abac.12117

Bhattacharya, Neil, Ecker, F., Olsson, P., & Schipper, K. (2009). Direct and Mediated Associations Among Earnings Quality, Information Asymmetry and the Cost of Equity. *Working Paper*, (May), 449–482. https://doi.org/10.2308/accr-10200

Bhattacharya, Nilabhra, Desai, H., & Venkataraman, K. (2013). Does earnings quality affect information asymmetry? Evidence from trading costs*. *Contemporary Accounting Research*, *30*(2), 482–516. https://doi.org/10.1111/j.1911-3846.2012.01161.x

Bilinski, P., Liu, W., & Strong, N. (2012). Does liquidity risk explain low firm performance following seasoned equity offerings? *Journal of Banking and Finance*, *36*(10), 2770–2785. https://doi.org/10.1016/j.jbankfin.2012.07.009

Boako, G., & Alagidede, P. (2017). Co-movement of Africa's equity markets: Regional and global analysis in the frequency–time domains. *Physica A: Statistical Mechanics and Its Applications*, *468*, 359–380. https://doi.org/10.1016/j.physa.2016.10.088

Booth, L., & Chang, B. (2011a). Information asymmetry, dividend status, and SEO announcement-day returns. *Journal of Financial Research*, *34*(1), 155–177. https://doi.org/10.1111/j.1475-6803.2010.01287.x

Booth, L., & Chang, B. (2011b). Information asymmetry Dividend Status and SEO Announcement Day Returns. *Journal of Financial Research*, *XXXIV*(1), 155–177.

Bornemann, S., Kick, T., Memmel, C., & Pfingsten, A. (2012). Are banks using hidden reserves to beat earnings benchmarks? Evidence from Germany. *Journal of Banking and Finance*, *36*(8), 2403–2415. https://doi.org/10.1016/j.jbankfin.2012.05.001

Bortoluzzo, A. B., Sheng, H. H., & Gomes, A. L. P. (2016). Earning management in Brazilian financial institutions. *Revista de Administração*, *51*(2), 182–197. https://doi.org/10.5700/rausp1233

Bowen, R. M., Rajgopal, S., & Venkatachalam, M. (2008). Accounting discretion, corporate governance, and firm performance. *Contemporary Accounting Research*, *25*(2), 351–405. https://doi.org/10.1506/car.25.2.3

Braam, G., Nandy, M., Weitzel, U., & Lodh, S. (2015). Accrual-based and real earnings management and political connections. *International Journal of Accounting*, *50*(2), 111–141. https://doi.org/10.1016/j.intacc.2013.10.009

Brav, A., Geczy, C., & Gompers, P. A. (2000). Is the abnormal return following equity issuances anomalous? *Journal of Financial Economics*, *56*(2), 209–249. https://doi.org/10.1016/S0304-405X(00)00040-4

Brazel, J. F., & Webb, E. (2006). CEO compensation and the seasoned equity offering decision. *Managerial and Decision Economics*, *27*(5), 363–378. https://doi.org/10.1002/mde.1268

Brooks, C. (2008). *Econometrics for Finance* (2nd Editio). New York, NY: Cambridge University Press.

Bukit, R. B., Takiah, A., & Iskandar, M. (2009). Surplus Free Cash Flow, Earnings Management and Audit Committee. *Int. Journal of Economics and Management*, *3*(1), 204–223.

Bundoo, S. K. (2017). Stock market development and integration in SADC (Southern African Development Community). *Review of Development Finance*, *7*(1), 64–72. https://doi.org/10.1016/j.rdf.2017.01.005

Butler, A. W., Grullon, G., & Weston, J. P. (2005). Can Managers Forecast Aggregate Market Returns? *The Journal of Finance*, *LX*(2), 963–986.

Cahan, S. (2011). Corporate Social Responsibility Reporting and Earnings Management : The Role of Political Costs Corporate Social Responsibility Reporting and Earnings Management :, *5*(3), 17–34.

Cai, J., & Zhang, H. (2016). The effect of venture capital on earnings management of GEM IPOs in China. In *2016 13th International Conference on Service Systems and Service Management, ICSSSM 2016* (p. 6). Kunming, China. https://doi.org/10.1109/ICSSSM.2016.7538601

Campa, D. (2019). Earnings management strategies during financial difficulties: A comparison between listed and unlisted French companies. *Research in International Business and Finance*, *50*(October 2018), 457–471. https://doi.org/10.1016/j.ribaf.2019.07.001

Campopiano, G., De Massis, A., & Cassia, L. (2012). The relationship between motivations and actions in corporate social responsibility: An exploratory study. *International Journal of Business and Society*, *13*(3), 391–425. https://doi.org/10.1007/s10551-011-0921-y

Caton, G. L., Chiyachantana, C. N., Chua, C. T., & Goh, J. (2011). Earnings management surrounding seasoned bond offerings: Do managers mislead ratings agencies and the bond market? *Journal of Financial and Quantitative Analysis*, *46*(3), 687–708. https://doi.org/10.1017/S0022109011000147

Chan, K., & Chan, Y. C. (2014). Price informativeness and stock return synchronicity: Evidence from the pricing of seasoned equity offerings. *Journal of Financial Economics*, *114*(1), 36–53. https://doi.org/10.1016/j.jfineco.2014.07.002

Chan, L. H., Chen, K. C. W., Chen, T. Y., & Yu, Y. (2014). Substitution between Real and Accruals-Based Earnings Management after Voluntary Adoption of Compensation Clawback Provisions. *The Accounting Review*, *90*(1), 147–174. https://doi.org/10.2308/accr-50862

Chang, C.-H., & Lin, H.-W. W. (2018). Does there prevail momentum in earnings management for seasoned equity offering firms? *International Review of Economics & Finance*, *55*(321), 111–129. https://doi.org/10.1016/j.iref.2017.12.015

Chauhan, Y., Kumar, K. K., & Chaturvedula, C. (2016). Information asymmetry and the information content of insider trades: Evidence from the Indian stock market. *Journal of Multinational Financial Management*, *34*, 65–79. https://doi.org/10.1016/j.mulfin.2015.12.003

Chen, J., & Gu, Z. (2008). Causes or Consequences? Earnings Management around Seasoned Equity Offerings. *Working Paper*, (October 2008). https://doi.org/10.2139/ssrn.1108063

Chen, K. Y., Elder, R. J., & Hsieh, Y.-M. (2007). Corporate Governance and Earnings Management: The Implications of Corporate Governance Best-Practice Principles for Taiwanese Listed Companies. *Journal of Contemporary Accounting & Economics*, *3*(2), 73–105. https://doi.org/10.1016/S1815-5669(10)70024-2

Chen, X. (2017). Improved corporate governance and Chinese seasoned equity offering announcement effects. *Accounting and Finance*, *57*(2), 401–428. https://doi.org/10.1111/acfi.12152

Chen, Y. W., Chou, R. K., & Lin, C. Bin. (2019). Investor sentiment, SEO market timing, and stock price performance. *Journal of Empirical Finance*, *51*(October 2017), 28–43. https://doi.org/10.1016/j.jempfin.2019.01.008

Cheng, A.-R. R., Jahan-Parvar, M. R., & Rothman, P. (2010). An empirical investigation of stock market behavior in the Middle East and North Africa. *Journal of Empirical Finance*, *17*(3), 413–427. https://doi.org/10.1016/j.jempfin.2009.11.002

Cheng, C. S. A., & Li, S. (2014). Does Income Smoothing Improve Earnings Informativeness ? – A Comparison between the US and China Markets *. *China Accounting and Finance Review*, *16*(2), 128–147. https://doi.org/10.7603/s40570-014-0010-6

Cheng, Q., & Warfield, T. D. (2005). Equity Incentives and Earnings Management. *The Accounting Review*, *80*(2), 441–476. https://doi.org/10.2308/accr.2005.80.2.441

Cheng, Q., Warfield, T. D., & Ye, M. (2011). Equity Incentives and Earnings Management: Evidence from the Banking Industry. *Journal of Accounting, Auditing and Finance*, *26*(2), 317–349. https://doi.org/10.1177/0148558X11401219

Chi, C. W., Hung, K., Cheng, H. W., & Tien Lieu, P. (2015). Family firms and earnings management in Taiwan: Influence of corporate governance. *International Review of Economics and Finance*, *36*, 88–98. https://doi.org/10.1016/j.iref.2014.11.009

Chi, W., Lisic, L. L., & Pevzner, M. (2011). Is Enhanced Audit Quality Associated with Greater Real Earnings Management? *Accounting Horizons*, *25*(2), 315–335. https://doi.org/10.2308/acch-10025

Ching, K. M. L. L., Firth, M., & Rui, O. M. (2006). Earnings Management, Corporate Governance and the Market Performance of Seasoned Equity Offerings in Hong Kong. *Journal of Contemporary Accounting & Economics*, *2*(1), 73–98. https://doi.org/10.1016/S1815-5669(10)70017-5

Chinzara, Z. (2011). Macroeconomic uncertainty and conditional stock market volatility in South Africa. *South African Journal of Economics*, *79*(1), 27–49. https://doi.org/10.1111/j.1813-6982.2011.01262.x

Chipeta, C, & Deressa, C. (2016). Financial Reforms and Firm performance on the Johannesburg Stock Exchange. *Journal for Studies in Economics and Econometrics*, *40*(1), 71–94.

Chipeta, Chimwemwe. (2012). *Finanncial Liberalization and the Capital Structure of Firms Listed on the Johannesburg Stock Exchange*. University of Pretoria.

Cho, E., & Chun, S. (2016). Corporate social responsibility, real activities earnings management, and corporate governance: evidence from Korea. *Asia-Pacific Journal of Accounting and Economics*, *23*(4), 400–431. https://doi.org/10.1080/16081625.2015.1047005

Chowdhury, A., Mollah, S., & Al Farooque, O. (2018). Insider-trading, discretionary accruals and information asymmetry. *British Accounting Review*, *50*(4), 341–363. https://doi.org/10.1016/j.bar.2017.08.005

Christensen, T. E., Huffman, A. A., & Lewis-Western, M. F. (2017). *Earnings Management Proxies: Prudent Business Decisions or Earnings Manipulation? SSRN Electronic Journal*. New Orleans. https://doi.org/10.2139/ssrn.2793838

Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review*, *15*, 1–33. https://doi.org/10.1016/j.ememar.2012.03.002

Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre- and post-sarbanes-oxley periods. *Accounting Review*, *83*(3), 757–787. https://doi.org/10.2308/accr.2008.83.3.757

Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics*, *50*(1), 2–19. https://doi.org/10.1016/j.jacceco.2010.01.002

Cohen, D., Dey, A., & Lys, T. (2008). Real and accrual-based earnings management in the pre-and post-Sarbanes Oxley periods. *The Accounting Review*, *83*(3), 757–787. https://doi.org/10.2308/accr.2008.83.3.757

Cohen, S., Papadaki, A., & Siougle, G. (2007). SEOs in a "hot market": Evidence of timing. *Applied Financial Economics*, *17*(14), 1179–1190. https://doi.org/10.1080/09603100600870984

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, *37*(1), 39–67. https://doi.org/10.1177/0149206310388419

Consoni, S., Colauto, R. D., & Lima, G. A. S. F. de. (2017). Voluntary disclosure and earnings management: evidence from the Brazilian capital market. *Revista Contabilidade & Finanças*, *28*(74), 249–263. https://doi.org/10.1590/1808-057x201703360

Cormier, D., Houle, S., & Ledoux, M. J. (2013). The incidence of earnings management on information asymmetry in an uncertain environment: Some Canadian evidence. *Journal of International Accounting, Auditing and Taxation*, *22*(1), 26–38. https://doi.org/10.1016/j.intaccaudtax.2013.02.002

Cormier, D., Ledoux, M. J., Magnan, M., & Aerts, W. (2010). Corporate governance and information asymmetry between managers and investors. *Corporate Governance: The International Journal of Business in Society*, *10*(5), 574–589. https://doi.org/10.1108/14720701011085553

Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). Corporate governance and earnings management at large U.S. bank holding companies. *Journal of Corporate Finance*, *15*(4), 412–430. https://doi.org/10.1016/j.jcorpfin.2009.04.003

Crane, A., Henriques, I., Husted, B. W., & Matten, D. (2016). What Constitutes a Theoretical Contribution in the Business and Society Field? *Business and Society*, *55*(6), 783–791. https://doi.org/10.1177/0007650316651343

Cupertino, C. M., Martinez, A. L., & da Costa, N. C. A. (2015). Earnings manipulations by real activities management and investors' perceptions. *Research in International Business and Finance*, *34*, 309–323. https://doi.org/10.1016/j.ribaf.2015.02.015

Dai, Y., Kong, D., & Wang, L. (2013). Information asymmetry, mutual funds and earnings management: Evidence from China. *China Journal of Accounting Research*, *6*(3), 187–209. https://doi.org/10.1016/j.cjar.2013.03.001

Daoping, S. H., Yang, D. C., & Guan, L. (2010). Earnings management and the performance of seasoned private equity placements: evidence from Japanese issuers. *Managerial Auditing Journal*, *25*(6), 569–590. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Das, R. C., & Jena, S. K. (2016). Earnings Management and Equity Issue Firms: A Study in Indian Context. *Jindal Journal of Business Research*, *5*(1), 64–85. https://doi.org/10.1177/2278682116680926

Das, R. C., Mishra, C. S., & Rajib, P. (2017). Real Versus Accrual based Earnings Management: Do Indian Firms Prefer One over the Other? *Asia-Pacific Journal of Accounting, Finance & Economics*, *2*(21), 156–174. https://doi.org/10.1177/0971890717736214

Das, S., Shroff, P. K., & Zhang, H. (2009). Quarterly earnings patterns and earnings management. *Contemporary Accounting Research*, *26*(3), 797–831. https://doi.org/10.1506/car.26.3.7

Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2015). The effect of manager-specific optimism on the tone of earnings conference calls. *Review of Accounting Studies*, *20*(2), 639–673. https://doi.org/10.1007/s11142-014-9309-4

Dbouk, W., & Ismail, A. (2010). Corporate governance and long run performance of seasoned equity issuers. *Journal of Multinational Financial Management*, *20*(4–5), 159–177. https://doi.org/10.1016/j.mulfin.2010.08.001

DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2010). Seasoned equity offerings, market timing, and the corporate lifecycle. *Journal of Financial Economics*, *95*(3), 275–295. https://doi.org/10.1016/j.jfineco.2009.11.002

Dechow, P. M., Hutton, A. P., Kim, J. H., & Sloan, R. G. (2012). Detecting Earnings Management: A New Approach. *Journal of Accounting Research*, *50*(2), 275–334. https://doi.org/10.1111/j.1475-679X.2012.00449.x

Dechow, P. M., Sloan, R. G., Sweeney, A. P., & Sloan, R. G. (1995). Detecting Earnings Management. *The Accounting Review*, *70*(2), 193–225. https://doi.org/10.2307/248303

Dechow, P, & Dichev, I. D. (2002). The Quality of Accruals and Earings: The Role of Accruals Estimation Errors. *The Accounting Review*, *77*(2002), 35–59. https://doi.org/10.2308/accr.2002.77.s-1.61

Dechow, Patricia, 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. https://doi.org/10.1016/j.jacceco.2010.09.001

DeFond, M. L. (2010). Earnings quality research: Advances, challenges and future research. *Journal of Accounting and Economics*, *50*(2–3), 402–409. https://doi.org/10.1016/j.jacceco.2010.10.004

Degeorge, F., Ding, Y., Jeanjean, T., & Stolowy, H. (2013). Analyst coverage, Earnings management and financial development: An international study. *Journal of Accounting and Public Policy*, *32*(1), 1–25. https://doi.org/10.1016/j.jaccpubpol.2012.10.003

Demerjian, P., Donovan, J., Dame, N., & Lewis-western, M. F. (2016). *Income Smoothing and the Usefulness of Earnings for Monitoring in Debt Contracting* *. Seattle.

Deng, X., Hrnjic, E., & Ong, S. E. (2012). *Investor Sentiment and Seasoned Equity Offerings*. *Social Sciences Research network*.

Deshmukh, S., Gamble, K. J., & Howe, K. M. (2017). Informed short selling around SEO announcements. *Journal of Corporate Finance*, *46*(April 1997), 121–138. https://doi.org/10.1016/j.jcorpfin.2017.05.013

Dichev, I. D., Graham, J. R., Harvey, C. R., & Rajgopal, S. (2012). Earnings quality: Evidence from the field. *Journal of Accounting and Economics*, *56*(2–3), 1–33. https://doi.org/10.1016/j.jacceco.2013.05.004

Dimitropoulos, P., & Leventis, S. (2012). The Role of Corporate Governance in Earnings Management: Experience from US banks. *Journal of Applied Accounting Research*, *13*(2), 161–177. https://doi.org/10.1108/JHOM-09-2016-0165

Du, Q., & Shen, R. (2018). Peer Performance and Earnings Management. *Journal of Banking & Finance*, *89*(1), 125–137. https://doi.org/10.1016/j.jbankfin.2018.01.017

Duellman, S., Ahmed, A. S., & Abdel-Meguid, A. M. (2013). An empirical analysis of the effects of monitoring intensity on the relation between equity incentives and earnings management. *Journal of Accounting and Public Policy*, *32*(6), 495–517. https://doi.org/10.1016/j.jaccpubpol.2013.08.007

Ecker, F., Francis, J., Olsson, P., & Schipper, K. (2013). Estimation sample selection for discretionary accruals models. *Journal of Accounting and Economics*, *56*(2–3), 190–211. https://doi.org/10.1016/j.jacceco.2013.07.001

El Diri, M., Lambrinoudakis, C., & Alhadab, M. (2020a). Corporate governance and earnings management in concentrated markets. *Journal of Business Research*, *108*(October 2019), 291–306. https://doi.org/10.1016/j.jbusres.2019.11.013

El Diri, M., Lambrinoudakis, C., & Alhadab, M. (2020b). Corporate governance and earnings management in concentrated markets. *Journal of Business Research*, *108*(April 2019), 291–306. https://doi.org/10.1016/j.jbusres.2019.11.013

Enomoto, M., Kimura, F., & Yamaguchi, T. (2015). Accrual-based and real earnings management: An international comparison for investor protection. *Journal of Contemporary Accounting and Economics*, *11*(3), 183–198. https://doi.org/10.1016/j.jcae.2015.07.001

Ewert, R. (2011). Conservatism , and Earnings Management , Conservatism , and Earnings Quality. *Foundations and Trends® in Accounting*, *6*(2), 65–186. https://doi.org/10.1561/1400000025

Fogel-Yaari, H., & Ronen, J. (2020). Earnings management strategies for meeting or beating expectations. *Journal of Accounting and Public Policy*, *39*(1), 106714. https://doi.org/10.1016/j.jaccpubpol.2019.106714

Fonseca, A. R., & González, F. (2008). Cross-country determinants of bank income smoothing by managing loan-loss provisions. *Journal of Banking and Finance*, *32*(2), 217–228. https://doi.org/10.1016/j.jbankfin.2007.02.012

Francis, B. B., Hasan, I., Lothian, J. R., & Sun, X. (2010). The signaling hypothesis revisited: Evidence from foreign IPOs. *Journal of Financial and Quantitative Analysis*, *45*(1), 81–106. https://doi.org/10.1017/S0022109010000037

Fu, R., Kraft, A., & Zhang, H. (2012). Financial reporting frequency, information asymmetry, and the cost of equity. *Journal of Accounting and Economics*, *54*(2–3), 132–149. https://doi.org/10.1016/j.jacceco.2012.07.003

Gao, J., Gao, B., & Wang, X. (2017). Trade-off between real activities earnings management and accrual-based manipulation-evidence from China. *Journal of International Accounting, Auditing and Taxation*, *29*(August), 66–80. https://doi.org/10.1016/j.intaccaudtax.2017.08.001

Geddes, R. (2003). *Initial Public Offers and Equity Offerings* (1st ed.). Oxford: Butterworth Heinmemann.

Ghosh, A., Marra, A., & Moon, D. (2010). Corporate Boards, Audit Committees, and Earnings Management: Pre- and Post-SOX Evidence. *Journal of Business Finance and Accounting*, *37*(9–10), 1145–1176. https://doi.org/10.1111/j.1468-5957.2010.02218.x

Ginglinger, E., Matsoukis, L., & Riva, F. (2013). Seasoned Equity Offerings: Stock Market Liquidity and the Rights Offer Paradox. *Journal of Business Finance and Accounting*, *40*(1–2), 215–238. https://doi.org/10.1111/jbfa.12007

Gkillas, K., Vortelinos, D. I., & Suleman, T. (2018). Asymmetries in the African financial markets. *Journal of Multinational Financial Management*, *45*, 72–87. https://doi.org/10.1016/j.mulfin.2018.04.004

Gombola, M., Ho, A., & Liu, F.-Y. (2003). *Do Investors Ever Learn from Seasoned Equity Offerings? Evidence from Recurring SEOs*.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, *40*(1–3), 3–73. https://doi.org/10.1016/j.jacceco.2005.01.002

Griffin, J. M., Kelly, P. J., & Nardari, F. (2010). Do market efficiency measures yield correct inferences? A comparison of developed and emerging markets. *Review of Financial Studies*, *23*(8), 3225–3277. https://doi.org/10.1093/rfs/hhq044

Gunny, K. A. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research*, *27*(3), 855–888. https://doi.org/10.1111/j.1911-3846.2010.01029.x

Guthrie, K., & Sokolowsky, J. (2010). Large shareholders and the pressure to manage earnings. *Journal of Corporate Finance*, *16*(3), 302–319. https://doi.org/10.1016/j.jcorpfin.2010.01.004

Hao, G. Q. (2014). *Horizons and Seasoned Equity Offerings*. *Journal of Financial Management*. Arlington.

Hao, Q., & Yao, L. J. (2010). An explanation for earnings management: opportunistic or signaling? *Journal of Theoretical Accounting Research*, *5*(2), 82–95.

Hassan, S. U., & Ahmed, A. (2012). Corporate Governance, Earnings Management and Financial Performance : A Case of Nigerian Manufacturing Firms. *American Journal of Contemporary Research*, *2*(7), 214–226.

He, W., Ng, L., Zaiats, N., & Zhang, B. (2017). Dividend policy and earnings management across countries. *Journal of Corporate Finance*, *42*, 267–286. https://doi.org/10.1016/j.jcorpfin.2016.11.014

He, Y., Wang, J., & John Wei, K. C. (2014). A comprehensive study of liquidity before and after SEOs and SEO underpricing. *Journal of Financial Markets*, *20*(1), 61–78. https://doi.org/10.1016/j.finmar.2014.03.004

Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, *7*(1–3), 85–107. https://doi.org/10.1016/0165-4101(85)90029-1

Hejazi, R., Ansari, Z., Sarikhani, M., Ebrahimi, F., & Science, S. (2011). The Impact Of Earnings Quality And Income Smoothing On The Performance Of Companies Listed In Tehran Stock Exchange. *International Journal of Business and Social Science*, *2*(17), 193–197.

Holland, D., & Ramsay, A. (2003). Do Australian companies manage earnings to meet simple earnings benchmarks? *Accounting and Finance*, *43*(1), 41–62. https://doi.org/10.1111/1467-629X.00082

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*(C), 77–117. https://doi.org/10.1016/0165-4101(83)90007-1

Hovakimian, A., & Hu, H. (2016). Institutional shareholders and SEO market timing. *Journal of Corporate Finance*, *36*, 1–14. https://doi.org/10.1016/j.jcorpfin.2015.09.009

Hribar, P., & Collins, D. (2002). Errors in Estimating Accruals : Implications for Empirical Research. *Journal of Accounting Research*, *40*(1), 105–134.

Hsiao, C. (2007). Panel data analysis - advantages and challenges. *Sociedad de Estad´ Istica e Investigaci´ on Operativa*, *00*(0), 1–63. https://doi.org/10.1007/s11749-007-0046-x

Huang, C. W., Ho, P. H., Lin, C. Y., & Yen, J. F. (2014). Firm age, idiosyncratic risk, and long-run SEO underperformance. *International Review of Economics and Finance*, *34*, 246–266. https://doi.org/10.1016/j.iref.2014.08.009

Huang, P., Zhang, Y., Deis, D. R., & Moffitt, J. S. (2009). Do artificial income smoothing and real income smoothing contribute to firm value equivalently? *Journal of Banking and Finance*, *33*(2), 224–233. https://doi.org/10.1016/j.jbankfin.2008.07.012

Huang, R., & Tompkins, J. G. (2010). Corporate governance and investor reactions to seasoned equity offerings. *Managerial Finance*, *36*(7), 603–628. https://doi.org/10.1108/03074351011050334

Huang, X., Nekrasov, A., & Teoh, S. H. (2012). Headline Salience and Over- and Underreactions to Earnings. *SSRN Electronic Journal*, *4*(10), 1–56. https://doi.org/10.2139/ssrn.2101887

Huang, Y., Uchida, K., & Zha, D. (2016). Market timing of seasoned equity offerings with long regulative process. *Journal of Corporate Finance*, *39*, 278–294. https://doi.org/10.1016/j.jcorpfin.2016.05.001

Hugonnier, J., Malamud, S., & Morellec, E. (2015). Capital supply uncertainty, cash holdings, and investment. *Review of Financial Studies*, *28*(2), 391–445. https://doi.org/10.1093/rfs/hhu081

Hull, R., Kwak, S., & Walker, R. (2010). Insider Signalling and Seasoned Equity Offerings. *Journal of Managerial Finance*, *36*(8), 703–721. https://doi.org/10.1108/MBE-09-2016-0047

Iatridis, G., & Kadorinis, G. (2009). Earnings management and firm financial motives: A financial investigation of UK listed firms. *International Review of Financial Analysis*, *18*(4), 164–173. https://doi.org/10.1016/j.irfa.2009.06.001

Ibrahim, S., Xu, L., & Rogers, G. (2011). Real and accrual-based earnings management and its legal consequences: Evidence from seasoned equity offerings. *Accounting Research Journal*, *24*(1), 50–78. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Iqbal, A., Espenlaub, S., & Strong, N. (2009). Earnings management around UK open offers. *European Journal of Finance*, *15*(1), 29–51. https://doi.org/10.1080/13518470701705652

Iqbal, A., & Strong, N. (2010). The Effect of Corporate Governance on Earnings Management Around UK Rights Issues. *International Journal of Managerial Finance*, *6*(3), 168–189. https://doi.org/10.1177/1356766716649228

Islam, M. A., Ali, R., & Ahmad, Z. (2011). Is Modified Jones Model Effective in Detecting Earnings Management? Evidence from A Developing Economy. *International Journal of Economics and Finance*, *3*(2), 116–125. https://doi.org/10.5539/ijef.v3n2p116

Jaggi, B., Leung, S., & Gul, F. (2009). Family control, board independence and earnings management: Evidence based on Hong Kong firms. *Journal of Accounting and Public Policy*, *28*(4), 281–300. https://doi.org/10.1016/j.jaccpubpol.2009.06.002

Jamalinesari, S., & Soheili, H. (2015). The Relationship between Information Asymmetry and Mechanisms of Corporate Governance of Companies in Tehran Stock Exchange. *Procedia - Social and Behavioral Sciences*, *205*(May), 505–509. https://doi.org/10.1016/j.sbspro.2015.09.056

Jeanneret, P. (2005). Use of the proceeds and long-term performance of French SEO firms. *European Financial Management*, *11*(1), 99–122. https://doi.org/10.1111/j.1354-7798.2005.00277.x

Jegadeesh, N. (2000). Long-term performance of seasoned equity offerings: Benchmark errors and biases in expectations. *Financial Management*, *29*(3), 5–30. https://doi.org/10.2307/3666227

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jiang, X., & Lee, B. S. (2013). Equity issues and aggregate market returns under information asymmetry. *Quantitative Finance*, *13*(2), 281–300. https://doi.org/10.1080/14697688.2012.717178

Jiraporn, P., Miller, G. A., Yoon, S. S., & Kim, Y. S. (2008). Is earnings management opportunistic or beneficial? An agency theory perspective. *International Review of Financial Analysis*, *17*(3), 622–634. https://doi.org/10.1016/j.irfa.2006.10.005

Jo, H., & Kim, Y. (2008). Ethics and disclosure: A study of the financial performance of firms in the seasoned equity offerings market. *Journal of Business Ethics*, *80*(4), 855–878. https://doi.org/10.1007/s10551-007-9473-6

Jones, J. J. (1991). Earnings Management During Import Relief Investigations. *Journal of Accounting Research*, *29*(2), 193. https://doi.org/10.2307/2491047

Jones, K. L., Krishnan, G. V., & Melendrez, K. D. (2008). Do models of discretionary accruals detect actual cases of fraudulent and restated earnings? An empirical analysis. *Contemporary Accounting Research*, *25*(2), 499–531. https://doi.org/10.1506/car.25.2.8

Kamarudin, K. A., Ismail, W. A. W., Mustapha, W. A. H. W., Anuar, K., Adibah, W., Ismail, W. A. W., … Mustapha, W. A. H. W. (2012). Aggressive Financial Reporting and Corporate Fraud. *Procedia - Social and Behavioral Sciences*, *65*(ICIBSoS), 638–643. https://doi.org/10.1016/j.sbspro.2012.11.177

Karpoff, J. M., Lee, G., & Masulis, R. W. (2013). Contracting under asymmetric information: Evidence from lockup agreements in seasoned equity offerings. *Journal of Financial Economics*, *110*(3), 607–626. https://doi.org/10.1016/j.jfineco.2013.08.015

Khalil, M., & Simon, J. (2014). Efficient contracting, earnings smoothing and managerial accounting discretion. *Journal of Applied Accounting Research*, *15*(1), 100–123. https://doi.org/10.1108/09574090910954864

Kighir, A., Omar, N., & Mohamed, N. (2014). Earnings management detection modeling: A methodological review. *World Journal of Social Sciences Issue. Pp*, *4*(1), 18–32.

Kim, J. B., & Sohn, B. C. (2013). Real earnings management and cost of capital. *Journal of Accounting and Public Policy*, *32*(6), 518–543. https://doi.org/10.1016/j.jaccpubpol.2013.08.002

Kim, S. T. (2017). Managements ' Overconfident Tone and Corporate Policies Managements ' Overconfident Tone and Corporate Policies.

Kim, W., & Weisbach, M. S. (2008). Motivations for public equity offers: An international perspective. *Journal of Financial Economics*, *87*(2), 281–307. https://doi.org/10.1016/j.jfineco.2006.09.010

Kim, Y., & Park, M. S. (2005). Pricing of Seasoned Equity Offers and Earnings Management. *Journal of Financial and Quantitative Analysis*, *40*(02), 435. https://doi.org/10.1017/S0022109000002374

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, *39*(1), 163–197. https://doi.org/10.1016/j.jacceco.2004.11.002

Kraft, A., Lee, B. S., & Lopatta, K. (2014). Management earnings forecasts, insider trading, and information asymmetry. *Journal of Corporate Finance*, *26*, 96–123. https://doi.org/10.1016/j.jcorpfin.2014.03.002

Larrain, B., & Urzúa I., F. (2013). Controlling shareholders and market timing in share issuance. *Journal of Financial Economics*, *109*(3), 661–681. https://doi.org/10.1016/j.jfineco.2013.03.013

Laux, C. (2009). Board Committees , CEO Compensation , and Earnings Management ∗ Board Committees , CEO Compensation , and Earnings. *The Accounting Review*, *84*(3), 869–891. https://doi.org/10.2308/accr.2009.84.3.869

Lazzem, S., & Jilani, F. (2017). The impact of leverage on accrual-based earnings management: The case of listed French firms. *Research in International Business and Finance*, (July). https://doi.org/10.1016/j.ribaf.2017.07.103

Leggett, D., Parsons, L. M., & Reitenga, A. L. (2016). Real Earnings Management and Subsequent Operating Performance. *Journal of Accounting Research*, *54*(5), 1233–1266. https://doi.org/10.2139/ssrn.1466411

Lento, C., & Yeung, W. (2017). Earnings benchmarks, earnings management and future stock performance of Chinese listed companies reporting under ASBE-IFRS". *Asian Review of Accounting*, *25*(4), 502–525. https://doi.org/http://dx.doi.org/10.1108/13217341311316959

Lerskullawat, P. (2011). *Seasoned Equity Offerings in an Emerging Market : Evidence From Thailand*. University of Birmingham.

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, *69*(3), 505–527. https://doi.org/10.1016/S0304-405X(03)00121-1

Li, L. (2019). Is there a trade-off between accrual-based and real earnings management? Evidence from equity compensation and market pricing. *Finance Research Letters*, *28*(April 2018), 191–197. https://doi.org/10.1016/j.frl.2018.04.021

Li, X. (2010). Real Earnings Management and Subsequent Stock Returns. *SSRN Electronic Journal*. https://doi.org/http://dx.doi.org/10.2139/ssrn.1679832

Li, X., Qian, J. "Qj," & Zhu, J. L. (2013). Earnings-reducing Activities before Management Buyouts. *Available at SSRN 2022091*.

Lim, C. Y., Thong, T. Y., & Ding, D. K. (2008). Firm diversification and earnings management: Evidence from seasoned equity offerings. *Review of Quantitative Finance and Accounting*, *30*(1), 69–92. https://doi.org/10.1007/s11156-007-0043-x

Lin, F. L. (2011). Is Earnings Management Opportunistic or Beneficial in Taiwan? Application of Panel Smooth Transition Regression Model. *International Journal of Economics and Finance*, *3*(1), 133.

Lin, F., & Wu, S. F. (2014). Comparison of cosmetic earnings management for the developed markets and emerging markets: Some empirical evidence from the United States and Taiwan. *Economic Modelling*, *36*, 466–473. https://doi.org/10.1016/j.econmod.2013.10.002

Lo, A. W. Y., Wong, R. M. K., & Firth, M. (2010). Can corporate governance deter management from manipulating earnings? Evidence from related-party sales transactions in China. *Journal of Corporate Finance*, *16*(2), 225–235. https://doi.org/10.1016/j.jcorpfin.2009.11.002

Lo, K. (2008). Earnings management and earnings quality. *Journal of Accounting and Economics*, *45*(2–3), 350–357. https://doi.org/10.1016/j.jacceco.2007.08.002

Lo, K., Ramos, F., & Rogo, R. (2017). Earnings management and annual report readability. *Journal of Accounting and Economics*, *63*(1), 1–25. https://doi.org/10.1016/j.jacceco.2016.09.002

Lobo, G. J., Song, M., & Stanford, M. (2012). Accruals quality and analyst coverage. *Journal of Banking and Finance*, *36*(2), 497–508. https://doi.org/10.1016/j.jbankfin.2011.08.006

Loughran, T., & Ritter, J. R. (1997). The Operating Performance of Firms Conducting Seasoned Equity Offerings. *The Journal of Finance*, *52*(5), 1823–1850. https://doi.org/10.1111/j.1540-6261.1997.tb02743.x

Luo, Y., & Zhou, L. (2013). Managerial ability, tone of earnings announcements and market reaction. *Asian Review of Accounting*, *25*(4), 454–471. https://doi.org/https://doi.org/10.1108/ ARA-07-2016-0078

Lyanndres, E., Zhang, L., & Sun, L. (2005). *Investment Based Underperformance Following Seasoned Equity Offerings*. Cambridge, Massachusetts.

Man, C., & Wong, B. (2013). Corporate Governance and Earnings Management: A Survey Of Literature. *Journal of Applied Business Research*, *84*(3), 391–418. https://doi.org/10.2308/accr.2009.84.3.869

Mao, Y., & Renneboog, L. (2015). Do managers manipulate earnings prior to management buyouts? *Journal of Corporate Finance*, *35*, 43–61. https://doi.org/10.1016/j.jcorpfin.2015.08.005

Marquardt, C., & Iedman, C. (2004). The Effect of Earnings Management on the Value Relevance of Accounting Information. *Journal of Business Finance & Accounting*, *31*(3), 297–332.

Marra, A., Mazzola, P., & Prencipe, A. (2011). Board monitoring and earnings management pre- and post-IFRS. *International Journal of Accounting*, *46*(2), 205–230. https://doi.org/10.1016/j.intacc.2011.04.007

Matsuura, S. (2008). On the relation between real earnings management and accounting earnings management: income smoothing perspective. *Journal of International Business Research*, *7*(3), 63–78.

Mazumder, M. M. M. (2016). Exploring the Impact of Ownership Structure on Earnings Predictability: Insights from Japan. *Indian Journal of Corporate Governance*, *9*(2), 97–121. https://doi.org/10.1177/0974686216666453

McLean, D. R. (2011). Share issuance and cash savings. *Journal of Financial Economics*, *99*(3), 693–715. https://doi.org/10.1016/j.jfineco.2010.10.006

McLean, R. D., & Zhao, M. (2018). Cash savings and capital markets. *Journal of Empirical Finance*, *47*(February 2017), 49–64. https://doi.org/10.1016/j.jempfin.2018.02.001

McNichols, M. F. (2000). *Research design issues in earnings management studies*. *Journal of Accounting and Public Policy* (Vol. 19). https://doi.org/10.1016/S0278-4254(00)00018-1

Mensah, J. O., & Alagidede, P. (2017). How are Africa's emerging stock markets related to advanced markets? Evidence from copulas. *Economic Modelling*, *60*, 1–10. https://doi.org/10.1016/j.econmod.2016.08.022

Mitchell, M. L., & Stafford, E. (2000). Managerial Decisions and Long-Term Stock Price Performance. *The Journal of Business*, *73*(3), 287–329. https://doi.org/10.1086/209645

Munisi, G., & Randøy, T. (2013). Corporate governance and company performance across Sub-Saharan African countries. *Journal of Economics and Business*, *70*, 92–110. https://doi.org/10.1016/j.jeconbus.2013.08.003

Nam, D. Il, Park, H. D., & Arthurs, J. D. (2014). Looking attractive until you sell: Earnings management, lockup expiration, and venture capitalists. *Journal of Management Studies*, *51*(8), 1286–1310. https://doi.org/10.1111/joms.12093

Narayan, R., & Dandale, S. (2008). *Earnings Management and Performance of Indian Equity Rights Issues*. *Social Sciences Research network*. Mumbai.

Ngo, A. D., & Varela, O. (2013). Earnings smoothing and the underpricing of seasoned equity offerings. *Managerial Finance*, *38*(9), 833–859. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Ntim, C. G., Kwaku K, O., Danbolt, J., & Dewotor, F. S. (2011). Testing the weak-form efficiency in African stock markets. *Managerial Finance*, *37*(3), 195–218.

Obigbemi, I., Omolehinwa, E., & Oluku, M. (2017). Ownership structure and earnings management practices of Nigerian companies. *Journal of Internet Banking and Commerce*, *22*(S8), 1–8.

Oz, I. O., & Yelkenci, T. (2018). Examination of real and accrual earnings management: A cross-country analysis of legal origin under IFRS. *International Review of Financial Analysis*, *58*(July 2017), 24–37. https://doi.org/10.1016/j.irfa.2018.04.003

Palliam, R., & Shalhoub, Z. (2013). The phenomenology of earnings management within the confines of agency theory. *International Journal of Value - Based Management*, *16*, 75.

Peng, E. Y. (2011). Accruals quality and the incentive contracting role of earnings. *Journal of Accounting and Public Policy*, *30*(5), 460–480. https://doi.org/10.1016/j.jaccpubpol.2011.06.005

Pududu, M. L., & Villiers, C. De. (2016). Earnings Management Through Loss Avoidance : Does South Africa Have a Good Story To Tell? *South African Journal of Economic and Management Sciences*, *19*(1), 18–34. https://doi.org/10.17159/2222-3436/2016/v19n1a2

PWC. (2016). *Africa capital Markets Watch 2016*. Johannesburg.

Qian, H. (2013). The Timing of Seasoned Equity Offerings: a Duration Analysis. *Managerial Finance*, *40*(6), 565–586. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Qian, H., Zhong, K., & Zhaodong, Z. (2012). Seasoned equity issuers research and development investments: signaling or overoptimism? *Journal of Financial Research*, *XXXV*(4), 553–580.

Rabin, C. E. (2016). *Earnings Management in South Africa: evidence and Implications*. University of the Witwatersrand.

Rahman, A., & Mohd Saleh, N. (2008). The Effect of Free Cash Flow Agency Problem on the Value Relevance of Earnings and Book Value. *Journal of Financial Reporting and Accounting*, *6*(2), 75–90. https://doi.org/10.1108/MBE-09-2016-0047

Rangan, S. (1998). Earnings management and the performance of seasoned equity offerings. *Journal of Financial Economics*, *50*(1), 101–122. https://doi.org/10.1016/S0304-405X(98)00033-6

Rani, P., Hussain, F. F., & Chand, P. V. (2013). Managerial Incentives for Earnings Management Among Listed Firms: Evidence from Fiji. *Global Journal of Business Research*, *7*(1), 21–32.

Ravi, R., & Hong, Y. (2014). Firm opacity and financial market information asymmetry. *Journal of Empirical Finance*, *25*, 83–94. https://doi.org/10.1016/j.jempfin.2013.11.007

Razzaque, R. M. R., Ali, M. J., & Mather, P. R. (2016). Real earnings management in family firms: Evidence from an emerging economy. *Pacific Basin Finance Journal*, *40*, 237–250. https://doi.org/10.1016/j.pacfin.2015.12.005

Reddy, Y. S. (2009). *Seasoned Capital Offerings: Earnings Management and Long-Run Operating Performance of Indian Firms*. Malaysia.

Richardson, V. J. (2000). Information Asymmetry and Earnings Management : Some Evidence. *Review of Quantitative Finance and Accounting*, *15*(1), 325–347. https://doi.org/10.1023/A:1012098407706

Risso, W. A. (2009). The informational efficiency: The emerging markets versus the developed markets. *Applied Economics Letters*, *16*(5), 485–487. https://doi.org/10.1080/17446540802216219

Ritter, J. R. (1991). The Long-Run Performance of Initial Public Offerings. *The Journal of Finance*, *46*(1), 3–27. https://doi.org/10.1111/j.1540-6261.1991.tb03743.x

Riwayati, H. E., Markonah, & Siladjaja, M. (2016). Implementation of Corporate Governance Influence to Earnings Management. *Procedia - Social and Behavioral Sciences*, *219*, 632–638. https://doi.org/10.1016/j.sbspro.2016.05.044

Ronen, J., & Yaari, V. (2008). *Earnings Management: Emerging Insights in Theory and Practice* (1st ed.). New York, NY: Springer US.

Roodposhti, F. R., Banimahd, B., Rezaei, S., & Salehi, A. (2012). Analysis of Power and Specification of Accruals -Based Models to Detect Earnings Management. *Journal of Basic and Applied Scientific Research*, *2*(10), 9961–9969.

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, *42*(3), 335–370. https://doi.org/10.1016/j.jacceco.2006.01.002

Roychowdhury, S., Kothari, S. P. P., & Mizik, N. (2012). Managing for the Moment: The Role of Real Activity Versus Accruals Earnings Management in SEO Valuation. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1982826

Ruiz, C. V. (2016). Literature review of earnings management : Who , why , when , how and what for ? *Finnish Business Review*, 1–13.

Rusmin, R., Astami, E., & Hartadi, B. (2014). The impact of surplus free cash flow and audit quality on earnings management: The case of growth triangle countries. *Asian Review of Accounting*, *21*(3), 241–256. https://doi.org/10.1108/ARA-04-2012-0017

Sáenz González, J., & García-Meca, E. (2014). Does Corporate Governance Influence Earnings Management in Latin American Markets? *Journal of Business Ethics*, *121*(3), 419–440. https://doi.org/10.1007/s10551-013-1700-8

Saleem, E., & Alzoubi, S. (2016). Ownership structure and earnings management: evidence from Jordan. *International Journal of Accounting and Information Management*, *24*(2), 135–161. https://doi.org/10.1108/09574090910954864

Salehi, H., Rezaie, H., & Ansari, F. (2014). Corporate governance and information asymmetry. *Management Science Letters*, *4*(8), 1829–1836. https://doi.org/10.5267/j.msl.2014.6.048

Salehi, M., & Manesh, N. (2011). The effect of income smoothing on the informativeness of stock price: Evidence from the Tehran Stock Exchange. *Asian Journal on Quality*, *12*(1), 80–90. https://doi.org/10.1108/09574090910954864

Samarahan, K., & Imm, S. (2010). *Information Asymmetry and Earnings Management : Causes of Inefficient Investment in Malaysia* (Vol. 18). Kuala Lumpur.

Sawicki, J., & Shrestha, K. (2008). Insider Trading and Earnings Management. *Journal of Business Finance & Accounting*, *35*(3–4), 331–346. https://doi.org/10.1111/j.1468-5957.2008.02075.x

Sechel, Ioana-Cristina, Gheorghe, C. (2014). Characteristics of the emerging market economies - BRICS, from the perspective of stock exchange markets. *Annals of the University of Oradea, Economic Science Series*, *23*(1), 40–49.

Seetharam, Y., & Cunha, J. A. Da. (2018a). The short-run performance of equity issues in South Africa: Bad timing or a last resort? *Journal of Economic and Financial Sciences*, *11*(1), 1–10. https://doi.org/http:// dx.doi.org/10.4102/jef. v11i1.179 Copyright:

Seetharam, Y., & Cunha, J. A. (2018b). The Long Run Performance of Secondary Equity Offerings on the Johannesburg Stock Exchange. *International Journal of Emerging Markets*, *1*(1), 36. https://doi.org/https://doi.org/10.1108/IJoEM-02-2017-0042

Shahid, H., Xinping, X., Mahmood, F., & Usman, M. (2010). Announcement Effects of Seasoned Equity Offerings in China. *International Journal of Economics and Finance*, *2*(3), 163–169. https://doi.org/10.5539/ijef.v2n3p163

Shahzad, A. (2016). Detecting earning management and earning manipulation in BRIC countries; a panel data analysis for post global financial crisis period. *International Journal of Accounting Research*, *4*(1), 1–10. https://doi.org/10.4172/ijar.1000134

Shan, Y. G. (2015). Value relevance, earnings management and corporate governance in China. *Emerging Markets Review*, *23*, 186–207. https://doi.org/10.1016/j.ememar.2015.04.009

Shivakumar, L. (2000). Do firms mislead investors by overstating earnings before seasoned equity offerings? *Journal of Accounting and Economics*, *29*(3), 339–371. https://doi.org/10.1016/S0165-4101(00)00026-4

Shu, P. G., & Chiang, S. J. (2014). Firm size, timing, and earnings management of seasoned equity offerings. *International Review of Economics and Finance*, *29*, 177–194. https://doi.org/10.1016/j.iref.2013.05.011

Silva, A. F. da, Weffort, E. F. J., Flores, E. da S., & Silva, G. P. da. (2014). Earnings management and economic crises in the brazilian capital market. *Revista de Administração de Empresas*, *54*(3), 268–283. https://doi.org/10.1590/S0034-759020140303

Sohn, B. C. (2016). The effect of accounting comparability on the accrual-based and real earnings management. *Journal of Accounting and Public Policy*, *35*(5), 513–539. https://doi.org/10.1016/j.jaccpubpol.2016.06.003

Spiess, D. K., & Affleck-Graves, J. (1995). Underperformance in long-run stock returns following seasoned equity offerings. *Journal of Financial Economics*, *38*(3), 243–267. https://doi.org/10.1016/0304-405X(94)00817-K

Srinidhi, B. I. N., Gul, F. A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary Accounting Research*, *28*(5), 1610–1644. https://doi.org/10.1111/j.1911-3846.2011.01071.x

Srivastava, A. (2014). Why have measures of earnings quality changed over time? *Journal of Accounting and Economics*, *57*(2–3), 196–217. https://doi.org/10.1016/j.jacceco.2014.04.001

Suffian, M. T. M., Sanusi, Z. M., Osman, A. H., & Azhari, M. I. M. (2015). Manipulation of Earnings: The Pressure of Opportunistic Behavior and Monitoring Mechanisms in Malaysian Shariah-compliant Companies. *Procedia Economics and Finance*, *31*(15), 213–227. https://doi.org/10.1016/S2212-5671(15)01223-X

Sugimoto, K., Matsuki, T., & Yoshida, Y. (2014). The global financial crisis: An analysis of the spillover effects on African stock markets. *Emerging Markets Review*, *21*, 201–233. https://doi.org/10.1016/j.ememar.2014.09.004

Sun, B. (2012). Corporate governance, stock options and earnings management. *Applied Economics Letters*, *19*(2), 189–196. https://doi.org/10.1080/13504851.2011.570707

Sun, L., & Rath, S. (2008). Fundamental Determinants, Opportunistic Behavior and Signaling Mechanism: An Integration of Earnings Management Perspectives. *International Review of Business Research Papers*, *4*(4), 406–420.

Sun, L., & Rath, S. (2012). Pre Managed Earnings Benchmarks and Earnings Management of Australian Firms. *Australasian Accounting Business & Finance Journal*, *6*(1), 29–55. https://doi.org/10.2139/ssrn.1663484

Swai, J. P., & Mbogela, C. S. (2016). Accrual-based versus real earnings management; the effect of ownership structure: Evidence from East Africa. *ACRN Oxford Journal of Finance and Risk Perspectives*, *5*(2), 121–140.

Tabassum, N., Kaleem, A., & Nazir, M. S. (2015). Real Earnings Management and Future Performance. *Global Business Review*, *16*(1), 21–34. https://doi.org/10.1177/0972150914553505

Tang, H., & Chen, A. (2020). How do market power and industry competition influence the effect of corporate governance on earnings management. *Quarterly Review of Economics and Finance*. https://doi.org/10.1016/j.qref.2020.02.001

Teoh, S. H., Welch, I., & Wong, T. J. (1998). Earnings management and the underperformance of seasoned equity offerings. *Journal Finance and Economics*, *50*(1), 63–99.

Teoh, Siew Hong, Welch, I., & Wong, T. J. (1998). Earnings management and the underperformance of seasoned equity offerings. *Journal Finance and Economics*, *50*(1), 63–99. https://doi.org/10.1016/S0304-405X(98)00032-4

Tudor, A. (2002). Income Smoothing and Earnings Informativeness A Matter of Institutional Characteristics or Accounting Standards ? *Assurance of PriceWaterhouse in Eindhoven*, *1*(1), 62–80.

United Nations Development Programme. (2003). *African Stock Markets Handbook*. New York, NY.

Verbeek, M. (2004). *A Guide to Modern Econometrics*. *Text* (2nd Editio). West Sussex: John Wiley & Sons Ltd. https://doi.org/10.1017/CBO9781107415324.004

Vladu, A. B., & Cuzdriorean, D. D. (2014). Detecting Earnings Management: Insights from the Last Decade Leading Journals Published Research. *Procedia Economics and Finance*, *15*(14), 695–703. https://doi.org/10.1016/S2212-5671(14)00542-5

Wadhwa, K., Nagi Reddy, V., Goyal, A., & Mohamed, A. (2016). IPOs and SEOs, real investments, and market timing: Emerging market evidence. *Journal of International Financial Markets, Institutions and Money*, *45*, 21–41. https://doi.org/10.1016/j.intfin.2016.05.007

Walker, M., & Yost, K. (2008). Seasoned equity offerings: What firms say, do, and how the market reacts. *Journal of Corporate Finance*, *14*, 376–386. https://doi.org/10.1016/j.jcorp

Wang, G., Hagigi, M., & Wang, G. (2019). The effect of the need for subsequent seasoned equity offerings on earnings management motivation. *Review of Accounting and Finance*, *18*(1), 25–52. https://doi.org/10.1108/RAF-01-2018-0019

Warusawitharana, M., & Whited, T. M. (2016). Equity market misvaluation, financing, and investment. *Review of Financial Studies*, *29*(3), 603–654. https://doi.org/10.1093/rfs/hhv066

Wasan, S., & Boone, J. P. (2010). Do accruals exacerbate information asymmetry in the market? *Advances in Accounting*, *26*(1), 66–78. https://doi.org/10.1016/j.adiac.2009.10.002

wen Tang, H., Chen, A., Chang, C. C., Tang, H. wen, Chen, A., & Chang, C. C. (2013). Insider trading, accrual abuse, and corporate governance in emerging markets - Evidence from Taiwan. *Pacific Basin Finance Journal*, *24*, 132–155. https://doi.org/10.1016/j.pacfin.2013.04.005

Wu, S.-W., Lin, F., & Fang, W. (2012). Earnings Management and Investor's Stock Return. *Emerging Markets Finance and Trade*, *48*(0), 129–140. https://doi.org/10.2753/REE1540-496X4805S308

Xiao, X. (2011). *Do Firms Manage Earnings During Seasoned Equity Offerings: The Case of Australia*. KDI School of Public Policy.

Xie, B., Davidson, W. N., Dadalt, P. J., Davidson Iii, W. N., & Dadalt, P. J. (2003). Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee. *Journal of Corporate Finance*, *9*(3), 295–316. https://doi.org/10.1016/S0929-1199(02)00006-8

Xue, S., & Hong, Y. (2016). Earnings management, corporate governance and expense stickiness. *China Journal of Accounting Research*, *9*(1), 41–58. https://doi.org/10.1016/j.cjar.2015.02.001

Xuefeng Jiang, J., Petroni, K. R., & Yanyan Wang, I. (2010). CFOs and CEOs: Who have the most influence on earnings management? *Journal of Financial Economics*, *96*(3), 513–526. https://doi.org/10.1016/j.jfineco.2010.02.007

Yang, C. Y., Lai, H. N., & Tan, B. L. (2008). Managerial Ownership Structure and Earnings Management. *Journal of Financial Reporting and Accounting*, *6*(1), 35–53. https://doi.org/10.1108/JHOM-09-2016-0165

Yang, T. H., Hsu, J., & Yang, W. Ben. (2016). Firm's motives behind SEOs, earnings management, and performance. *International Review of Economics and Finance*, *43*, 160–169. https://doi.org/10.1016/j.iref.2015.10.038

Yaping, N. (2005). The Theoretical Framework of Earnings Management. *Canadian Social Science*, *1*(3), 32–38.

Yongtae, K., Siqi, L., Pan, C., & Luo, Z. (2013). The Role of Accounting Conservatism in the Equity Market: Evidence from Seasoned Equity Offerings. *Accounting Review*, *88*(4), 1327–1356. https://doi.org/10.2308/accr-50420

Yoon, S. S., & Miller, G. (2002). Earnings management of seasoned equity offering firms in Korea. *International Journal of Accounting*, *37*(1), 57–78. https://doi.org/10.1016/S0020-7063(02)00140-1

Yu, F. (Frank). (2008). Analyst coverage and earnings management. *Journal of Financial Economics*, *88*(2), 245–271. https://doi.org/10.1016/j.jfineco.2007.05.008

Zang, A. Y. (2012a). Earnings Management Evidence on the Trade-Off between Real Activities Manipulation and Accrual-Based Earnings Management I study strategies , real activities manipulation. *The Accounting Review*, *87*(2), 675–703. https://doi.org/10.2308/accr-10196

Zang, A. Y. (2012b). Evidence on the trade-off between real activities manipulation and accrual-based earnings management. *Accounting Review*, *87*(2), 675–703. https://doi.org/10.2308/accr-10196

Zéghal, D., Chtourou, S., & Sellami, Y. M. (2011). An analysis of the effect of mandatory adoption of IAS/IFRS on earnings management. *Journal of International Accounting, Auditing and Taxation*, *20*(2), 61–72. https://doi.org/10.1016/j.intaccaudtax.2011.06.001

Zellner, W., & Forest, S. (2001). The fall of Enron. *Businessweek*, *17*(Dec 17), 30–36. https://doi.org/10.1257/089533003765888403

Zhang, J., & Yu, H. (2017). Venture Capitalists' Experience and Foreign IPOs: Evidence from China. *Entrepreneurship: Theory and Practice*, *41*(5), 677–707. https://doi.org/10.1111/etap.12228

Zhang, L. (2020). The effects of trading rights and ownership structures on the informativeness of accounting earnings: Evidence from China' split share structure reform. *Research in International Business and Finance*, *51*(September 2019), 101110. https://doi.org/10.1016/j.ribaf.2019.101110

Zhang, Y., Uchida, K., & Dong, L. (2020). External Financing and Earnings Management: Evidence fro, International Data. *Research in International Business and Finance*, *1*(2), 34. https://doi.org/10.1016/j.ribaf.2020.101275

Zhou, J., & Elder, R. (2004). Audit quality and earnings management by seasoned equity offering firms. *Asia-Pacific Journal of Accounting & Economics*, *11*(2), 95–120. https://doi.org/10.1080/16081625.2004.10510638

Zhu, T., Lu, M., Shan, Y., & Zhang, Y. (2015). Accrual-based and real activity earnings management at the back door: Evidence from Chinese reverse mergers. *Pacific Basin Finance Journal*, *35*(12), 317–339. https://doi.org/10.1016/j.pacfin.2015.01.008

Zhu, Y. W., Ong, S. E., & Yeo, W. Y. (2010). Do REITs manipulate their financial results around seasoned equity offerings? Evidence from US equity REITs. *Journal of Real Estate Finance and Economics*, *40*(4), 412–445. https://doi.org/10.1007/s11146-009-9227-6

Zulfiqar, S., Shah, A., Butt, S. A., Hasan, A., & Ali, M. (2009). Corporate Governance and Earnings Management an Empirical Evidence Form Pakistani Listed Companies. *European Journal of Scientific Research ISSN*, *26*(4), 1450–216.

APPENDICES

Appendix I: Regression Results for ROA in Selected Countries

South Africa							
	Years						
	Return on Asset (ROA)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	0.220	1.119	0.901	1.252*	0.065	0.664	-21.894
	(0.770)	(0.744)	(0.989)	(0.675)	(1.425)	(0.787)	(14.711)
DA_DMY	1.103	0.572	-1.598*	0.079	0.005	0.408	-1.374
	(0.720)	(0.695)	(0.924)	(0.631)	(1.331)	(0.736)	(13.744)
Lag_Q_YRLY	0.702**	1.072***	0.485	0.347	-1.618***	-0.226	-22.795***
	(0.332)	(0.321)	(0.427)	(0.291)	(0.614)	(0.340)	(6.343)
LOG_MKT_SIZE	-0.254	-0.109	-0.140	-0.517***	-0.444	-0.447**	3.241
	(0.179)	(0.173)	(0.230)	(0.157)	(0.332)	(0.183)	(3.422)
LOG_MKTCAP	0.136	-0.102	0.100	0.320***	0.800***	0.405***	4.330
	(0.140)	(0.135)	(0.180)	(0.123)	(0.260)	(0.143)	(2.680)
ISSUEMKTCAP	0.412	-2.237	-3.302	1.400	-6.922*	0.750	-99.932**
	(2.131)	(2.057)	(2.737)	(1.868)	(3.943)	(2.179)	(40.702)
LEV	-0.060	-0.339***	-0.141	0.035	-0.033	-0.010	0.875
	(0.070)	(0.067)	(0.089)	(0.061)	(0.129)	(0.071)	(1.328)
GDP	1.142	3.186	1.682	-0.480	3.542	1.379	17.807
	(2.274)	(2.195)	(2.921)	(1.993)	(4.207)	(2.325)	(43.428)
Observations	292	292	292	292	292	292	292
R-squared	0.041	0.134	0.049	0.053	0.104	0.050	0.090
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Egypt							
	Years						
	Return on Asset (ROA)						
VARIABLES	-3	-2	-1	0	1	2	3
LOG_LST_YRS	0.138	0.313	0.324	0.085	0.043	-0.324	-0.147
	(0.833)	(0.789)	(0.602)	(0.830)	(0.795)	(0.510)	(0.346)
DA_DMY	0.061	0.836	1.375**	-0.010	-0.927	0.163	0.255
	(0.855)	(0.810)	(0.618)	(0.852)	(0.816)	(0.523)	(0.355)
Lag_Q_YRLY	0.178	0.196	0.098	-1.596***	-0.543**	-0.003	-0.069
	(0.221)	(0.209)	(0.160)	(0.220)	(0.211)	(0.135)	(0.092)
LOG_MKT_SIZE	0.200	0.122	0.071	-0.196	-0.252	-0.104	-0.014
	(0.247)	(0.234)	(0.179)	(0.246)	(0.236)	(0.151)	(0.103)
LOG_MKTCAP	-0.278	-0.189	-0.248	0.748**	0.683**	0.240	0.142
	(0.321)	(0.304)	(0.232)	(0.320)	(0.306)	(0.196)	(0.133)
ISSUEMKTCAP	-0.041	-0.024	-0.016	0.098	0.082	0.030	0.206***
	(0.132)	(0.125)	(0.095)	(0.131)	(0.125)	(0.080)	(0.055)
LEV	-0.252	-0.463***	-0.194	0.023	-0.266	-0.139	-0.142*
	(0.174)	(0.165)	(0.126)	(0.174)	(0.166)	(0.107)	(0.072)
GDP	0.046	-0.017	0.396	-0.057	-0.053	-0.031	-0.070
	(0.388)	(0.368)	(0.280)	(0.387)	(0.370)	(0.237)	(0.161)
Observations	107	107	107	107	107	107	107
R-squared	0.049	0.129	0.126	0.360	0.132	0.039	0.173
Standard errors in parentheses							
*** p<0.01, ** p<0.05, * p<0.1							

Tunisia							
				Years			
	Return on Asset (ROA)						
VARIABLES	-3	-2	-1	0	1	2	3
LOG_LST_YRS	0.251	-0.448	-0.553	0.336	-0.103	0.428	0.344
	(1.134)	(1.544)	(1.441)	(1.382)	(1.381)	(1.149)	(0.828)
DA_DMY	1.291	1.470	0.802	-0.002	0.081	0.015	0.153
	(0.986)	(1.343)	(1.253)	(1.202)	(1.201)	(0.999)	(0.720)

Lag_Q_YRLY	0.327	0.104	0.350	0.950**	0.291	0.307	0.064
	(0.384)	(0.522)	(0.488)	(0.468)	(0.467)	(0.389)	(0.280)
LOG_MKT_SIZE	-0.031	0.087	-0.053	-0.408	-0.070	-0.262	-0.328*
	(0.247)	(0.336)	(0.314)	(0.301)	(0.301)	(0.250)	(0.180)
LOG_MKTCAP	-0.132	-0.027	0.279	0.347	0.504	0.403	0.487
	(0.405)	(0.551)	(0.515)	(0.494)	(0.493)	(0.411)	(0.296)
ISSUEMKTCAP	-1.700	-5.191	-3.261	-16.853*	5.182	4.823	3.032
	(7.481)	(10.187)	(9.508)	(9.123)	(9.111)	(7.583)	(5.463)
LEV	-0.017	-0.037	-0.033	0.099	-0.672***	-0.134	-0.035
	(0.151)	(0.205)	(0.192)	(0.184)	(0.184)	(0.153)	(0.110)
GDP	20.926	12.687	-8.163	37.421	8.603	-4.941	-0.366
	(28.450)	(38.743)	(36.161)	(34.696)	(34.649)	(28.840)	(20.775)
Observations	74	74	74	74	74	74	74
R-squared	0.153	0.096	0.101	0.204	0.265	0.077	0.094
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Nigeria							
	Years						
	Return on Asset (ROA)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	0.761	1.447	1.095	-2.159	-1.652	-2.313*	-1.701*
	(1.984)	(1.593)	(1.368)	(1.982)	(1.129)	(1.190)	(0.879)
DA_DMY	2.028	1.887	1.113	-1.340	-0.825	-0.946	-2.552**
	(2.418)	(1.941)	(1.666)	(2.415)	(1.376)	(1.451)	(1.071)
Lag_Q_YRLY	0.641	-0.152	0.209	0.690	0.103	-0.055	0.478
	(0.781)	(0.627)	(0.538)	(0.780)	(0.444)	(0.468)	(0.346)
LOG_MKT_SIZE	-0.220	-0.554	-0.501	0.634	0.021	0.193	0.344
	(0.546)	(0.438)	(0.376)	(0.545)	(0.311)	(0.327)	(0.242)
LOG_MKTCAP	-0.114	0.406	0.324	-0.261	0.235	0.272	0.082
	(0.380)	(0.305)	(0.262)	(0.379)	(0.216)	(0.228)	(0.168)
ISSUEMKTCAP	-65.230	-163.350**	14.726	-28.730	-4.856	12.036	5.565
	(82.221)	(66.021)	(56.674)	(82.115)	(46.802)	(49.333)	(36.423)
LEV	-0.064	-0.216	-0.041	-0.144	-0.162*	-0.070	-0.021
	(0.168)	(0.135)	(0.116)	(0.168)	(0.096)	(0.101)	(0.075)

GDP	40.504	20.100	1.218	-18.123	16.631	-14.580	-29.994**
	(30.880)	(24.796)	(21.285)	(30.840)	(17.578)	(18.528)	(13.679)
Observations	54	54	54	54	54	54	54
R-squared	0.142	0.256	0.088	0.077	0.210	0.172	0.237
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Morocco							
				Years			
	Return on Asset (ROA)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	-0.235	-0.717	-0.180	0.159	-0.106	0.254	-0.349
	(0.632)	(0.760)	(0.612)	(0.717)	(0.559)	(0.566)	(0.622)
DA_DMY	-0.315	1.916**	-0.006	0.134	-0.456	-1.419**	0.744
	(0.746)	(0.897)	(0.722)	(0.846)	(0.660)	(0.667)	(0.734)
Lag_Q_YRLY	-0.330	-0.202	0.324	1.324	0.489	0.920	-0.706
	(0.838)	(1.007)	(0.810)	(0.950)	(0.741)	(0.749)	(0.824)
LOG_MKT_SIZE	0.475	1.183*	0.391	-0.244	0.254	-0.460	0.379
	(0.530)	(0.637)	(0.513)	(0.601)	(0.469)	(0.474)	(0.522)
LOG_MKTCAP	-0.540	-1.396**	-0.259	0.166	-0.100	0.674	-0.075
	(0.538)	(0.648)	(0.521)	(0.611)	(0.476)	(0.482)	(0.530)
ISSUEMKTCAP	-1.818	-3.809	-1.491	-0.399	-0.968	1.255	-0.814
	(2.005)	(2.411)	(1.940)	(2.274)	(1.774)	(1.794)	(1.973)
LEV	-0.382	-0.950**	-0.263	0.031	-0.145	0.261	-0.427
	(0.319)	(0.384)	(0.309)	(0.362)	(0.282)	(0.285)	(0.314)
GDP	52.425*	58.916*	-18.719	-11.189	-27.917	-34.425	-3.283
	(28.206)	(33.926)	(27.292)	(31.988)	(24.960)	(25.234)	(27.766)
Observations	49	49	49	49	49	49	49
R-squared	0.207	0.286	0.146	0.149	0.169	0.271	0.142
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Mauritius							
	Years						
	Return on Asset (ROA)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	0.948	0.824	-1.112	-1.713	-1.812	-0.622	-1.147
	(1.124)	(2.438)	(2.643)	(2.682)	(1.483)	(0.827)	(0.982)
DA_DMY	0.139	0.135	0.271	-0.057	-0.064	-0.089	-0.012
	(0.394)	(0.855)	(0.927)	(0.941)	(0.520)	(0.290)	(0.344)
Lag_Q_YRLY	-0.934	0.017	0.287	2.231	-1.603	-0.147	-0.428
	(0.796)	(1.726)	(1.871)	(1.898)	(1.050)	(0.585)	(0.695)
LOG_MKT_SIZE	0.112	-0.821	0.579	0.344	0.193	0.217	0.248
	(0.338)	(0.733)	(0.794)	(0.806)	(0.446)	(0.249)	(0.295)
LOG_MKTCAP	-0.043	0.401	-0.012	0.514	0.177	0.037	0.044
	(0.171)	(0.370)	(0.401)	(0.407)	(0.225)	(0.125)	(0.149)
ISSUEMKTCAP	-21.067**	-47.386**	-56.255**	67.873***	4.566	-0.459	-1.177
	(10.002)	(21.695)	(23.514)	(23.862)	(13.196)	(7.355)	(8.733)
LEV	0.023	0.273	-0.434*	-1.720***	-0.012	-0.051	-0.062
	(0.092)	(0.200)	(0.217)	(0.220)	(0.122)	(0.068)	(0.081)
GDP	-21.497	45.949	-43.312	-64.067	30.145	-16.724	0.849
	(33.743)	(73.187)	(79.324)	(80.498)	(44.515)	(24.812)	(29.462)
Observations	69	69	69	69	69	69	69
R-squared	0.188	0.243	0.299	0.560	0.109	0.089	0.105
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Ghana							
				Years			
	Return on Asset (ROA)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	-2.692	-8.995*	-13.764	-6.397	-1.037	-21.363	0.526
	(5.110)	(4.523)	(8.592)	(6.691)	(3.324)	(12.801)	(0.739)
DA_DMY	-1.424	-0.909	2.960	-1.817	0.697	-2.658	-0.056
	(1.466)	(1.298)	(2.465)	(1.920)	(0.954)	(3.673)	(0.212)

Lag_Q_YRLY	1.523	-0.375	-0.716	-0.175	-0.117	0.822	0.070
	(1.242)	(1.099)	(2.088)	(1.626)	(0.808)	(3.111)	(0.180)
LOG_MKT_SIZE	-0.817	2.456*	2.410	1.018	0.195	5.542	-0.276
	(1.432)	(1.267)	(2.408)	(1.875)	(0.931)	(3.587)	(0.207)
LOG_MKTCAP	0.698	-0.016	0.739	0.727	0.254	-0.201	0.081
	(0.630)	(0.558)	(1.060)	(0.825)	(0.410)	(1.579)	(0.091)
ISSUEMKTCAP	3.085	-3.665	-2.016	-0.115	0.546	-10.593	0.636
	(3.297)	(2.918)	(5.543)	(4.317)	(2.144)	(8.258)	(0.477)
LEV	0.313	-0.737	-0.612	-0.213	-0.098	-0.596	0.113
	(0.554)	(0.490)	(0.931)	(0.725)	(0.360)	(1.387)	(0.080)
GDP	74.628***	-2.983	31.799	7.906	-15.472	-27.797	3.505
	(22.341)	(19.776)	(37.565)	(29.255)	(14.532)	(55.967)	(3.232)
Observations	18	18	18	18	18	18	18
R-squared	0.677	0.388	0.482	0.311	0.342	0.423	0.373
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Kenya							
				Years			
	Return on Asset (ROA)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	-0.012	0.085	-0.327	0.168	-7.827*	-8.940**	-2.660
	(1.278)	(1.241)	(1.077)	(0.976)	(4.154)	(3.852)	(3.538)
DA_DMY	1.028	-1.163	-0.064	-0.540	4.770	4.442	-7.735*
	(1.415)	(1.374)	(1.193)	(1.081)	(4.600)	(4.266)	(3.918)
Lag_Q_YRLY	5.018***	-0.984	2.073	1.809	1.164	-2.837	2.869
	(1.701)	(1.652)	(1.434)	(1.300)	(5.530)	(5.128)	(4.710)
LOG_MKT_SIZE	-2.185*	1.896	-0.625	-0.852	0.332	2.166	-4.000
	(1.231)	(1.195)	(1.038)	(0.940)	(4.002)	(3.711)	(3.408)
LOG_MKTCAP	0.650	-0.381	0.341	0.174	2.037	2.392	4.265***
	(0.530)	(0.515)	(0.447)	(0.405)	(1.722)	(1.597)	(1.467)
ISSUEMKTCAP	0.209	-0.264	0.138	0.052	0.971	1.130	1.965**
	(0.257)	(0.249)	(0.217)	(0.196)	(0.835)	(0.774)	(0.711)
LEV	-0.283	-1.163	-0.681	-0.376	-3.672	-5.142*	-7.112***
	(0.886)	(0.860)	(0.747)	(0.677)	(2.880)	(2.671)	(2.453)
GDP	19.055	-18.799	18.019	46.939*	-23.739	-62.361	83.625
	(34.081)	(33.094)	(28.733)	(26.035)	(110.779)	(102.722)	(94.354)

Observations	33	33	33	33	33	33	33
R-squared	0.412	0.258	0.232	0.284	0.211	0.299	0.376
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

Appendix II: Regression Results for ROE in Selected Countries

SOUTH AFRICA							
				Years			
VARIABLES		Return on Equity (ROE)					
	-3	-2	-1	0	1	2	3
LOG_LST_YRS	1.779	1.819	-0.837	4.169*	7.444	3.786*	-21.894
	(1.919)	(1.925)	(3.164)	(2.447)	(4.584)	(2.236)	(14.711)
DA_DMY	1.095	1.992	-5.121*	-1.665	-0.992	2.139	-1.374
	(1.793)	(1.798)	(2.956)	(2.286)	(4.282)	(2.089)	(13.744)
Lag_Q_YRLY	0.091	1.703**	-0.115	0.764	0.333	0.160	-22.795***
	(0.828)	(0.830)	(1.364)	(1.055)	(1.976)	(0.964)	(6.343)
LOG_MKT_SIZE	-0.725	-0.401	-0.067	-1.399**	-2.384**	-1.543***	3.241
	(0.447)	(0.448)	(0.736)	(0.569)	(1.066)	(0.520)	(3.422)
LOG_MKTCAP	0.519	0.154	0.898	0.924**	1.486*	0.973**	4.330
	(0.350)	(0.351)	(0.576)	(0.446)	(0.835)	(0.407)	(2.680)
ISSUEMKTCAP	-3.849	-7.299	-2.951	7.756	1.621	7.432	-99.932**
	(5.311)	(5.326)	(8.753)	(6.771)	(12.682)	(6.187)	(40.702)
LEV	-0.028	-0.858***	-1.055***	-0.144	-0.529	-0.381*	0.875
	(0.173)	(0.174)	(0.286)	(0.221)	(0.414)	(0.202)	(1.328)
GDP	1.142	9.516*	10.846	-18.087**	8.298	6.005	17.807
	(5.666)	(5.683)	(9.340)	(7.224)	(13.531)	(6.601)	(43.428)
Observations	292	292	292	292	292	292	292
R-squared	0.022	0.119	0.098	0.079	0.052	0.073	0.090
Standard errors in parentheses							
*** p<0.01, ** p<0.05, * p<0.1							

EGYPT							
				Years			
VARIABLES	Return on Equity (ROE)						
	-3	-2	-1	0	1	2	3
LOG_LST_YRS	0.441	-0.169	0.877	-1.152	-1.772	-1.896	-0.147
	(1.499)	(1.108)	(1.311)	(1.646)	(1.705)	(1.975)	(0.346)
DA_DMY	0.422	1.085	2.680**	0.562	-0.497	0.441	0.255
	(1.539)	(1.138)	(1.346)	(1.690)	(1.750)	(2.027)	(0.355)
Lag_Q_YRLY	0.333	0.211	0.224	0.034	-0.117	0.235	-0.069
	(0.398)	(0.294)	(0.348)	(0.437)	(0.452)	(0.524)	(0.092)
LOG_MKT_SIZE	0.344	0.124	0.068	-0.370	-0.637	-0.348	-0.014

	(0.445)	(0.329)	(0.389)	(0.489)	(0.506)	(0.586)	(0.103)
LOG_MKTCAP	-0.532	-0.047	-0.454	0.617	1.604**	1.064	0.142
	(0.578)	(0.427)	(0.505)	(0.635)	(0.657)	(0.761)	(0.133)
ISSUEMKTCAP	-0.076	-0.010	-0.024	0.120	0.215	0.134	0.206***
	(0.237)	(0.175)	(0.207)	(0.260)	(0.269)	(0.312)	(0.055)
LEV	-0.477	-0.575**	-0.492*	-0.201	-0.806**	-0.840**	-0.142*
	(0.314)	(0.232)	(0.275)	(0.345)	(0.357)	(0.414)	(0.072)
GDP	0.061	-0.057	0.332	0.039	-0.185	-0.150	-0.070
	(0.698)	(0.516)	(0.611)	(0.767)	(0.794)	(0.920)	(0.161)
Observations	107	107	107	107	107	107	107
R-squared	0.053	0.096	0.111	0.034	0.103	0.072	0.173
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

TUNISIA							
				Years			
	Return on Equity (ROE)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	0.522	-0.479	-0.622	3.922	0.143	0.918	0.344
	(2.507)	(2.918)	(2.564)	(3.696)	(9.122)	(2.638)	(0.828)
DA_DMY	3.311	2.665	1.338	3.599	-2.808	-1.168	0.153
	(2.181)	(2.538)	(2.230)	(3.214)	(7.933)	(2.294)	(0.720)
Lag_Q_YRLY	1.196	0.253	0.482	1.085	-3.111	1.080	0.064
	(0.848)	(0.988)	(0.868)	(1.251)	(3.087)	(0.893)	(0.280)
LOG_MKT_SIZE	-0.141	0.084	0.009	-0.449	6.247***	-0.749	-0.328*
	(0.546)	(0.636)	(0.559)	(0.805)	(1.987)	(0.575)	(0.180)
LOG_MKTCAP	-0.499	-0.109	0.366	-0.905	-0.020	0.889	0.487
	(0.896)	(1.043)	(0.916)	(1.320)	(3.259)	(0.942)	(0.296)
ISSUEMKTCAP	-3.686	-17.793	-17.282	-146.080***	14.735	17.291	3.032
	(16.546)	(19.258)	(16.922)	(24.390)	(60.194)	(17.408)	(5.463)
LEV	0.061	0.065	0.077	1.103**	-16.134***	-0.424	-0.035
	(0.333)	(0.388)	(0.341)	(0.492)	(1.213)	(0.351)	(0.110)
GDP	61.121	44.865	-32.338	102.246	0.693	23.260	-0.366
	(62.926)	(73.240)	(64.358)	(92.759)	(228.925)	(66.204)	(20.775)
Observations	74	74	74	74	74	74	74
R-squared	0.186	0.104	0.109	0.425	0.787	0.069	0.094
Standard errors in parentheses							

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

NIGERIA							
				Years			
	Return on Equity (ROE)						
VARIABLES	-3	-2	-1	0	1	2	3
LOG_LST_YRS	4.081	5.036	7.093*	-9.096	-8.304	-4.929**	-1.701*
	(2.869)	(6.731)	(3.993)	(7.706)	(5.806)	(2.399)	(0.879)
DA_DMY	3.850	5.368	10.010**	-9.190	-9.169	-1.404	-2.552**
	(3.496)	(8.202)	(4.866)	(9.390)	(7.075)	(2.924)	(1.071)
Lag_Q_YRLY	1.391	-3.029	1.623	4.386	0.480	-0.148	0.478
	(1.129)	(2.648)	(1.571)	(3.032)	(2.284)	(0.944)	(0.346)
LOG_MKT_SIZE	-1.526*	-2.196	-2.037*	3.348	2.025	0.340	0.344
	(0.789)	(1.852)	(1.099)	(2.120)	(1.597)	(0.660)	(0.242)
LOG_MKTCAP	0.465	2.257*	0.273	-2.025	0.068	0.530	0.082
	(0.549)	(1.288)	(0.764)	(1.475)	(1.111)	(0.459)	(0.168)
ISSUEMKTCAP	-45.755	-272.451	12.917	0.828	-8.575	16.009	5.565
	(118.887)	(278.943)	(165.481)	(319.337)	(240.603)	(99.430)	(36.423)
LEV	-0.099	-1.108*	-0.025	-0.485	-2.768***	-0.085	-0.021
	(0.244)	(0.571)	(0.339)	(0.654)	(0.493)	(0.204)	(0.075)
GDP	93.686**	35.765	-8.188	-154.549	47.490	-24.671	-29.994**
	(44.651)	(104.764)	(62.151)	(119.935)	(90.365)	(37.343)	(13.679)
Observations	54	54	54	54	54	54	54
R-squared	0.248	0.179	0.140	0.102	0.447	0.172	0.237
Standard errors in parentheses							
*** p<0.01, ** p<0.05, * p<0.1							

MOROCCO							
				Years			
	Return on Equity (ROE)						
VARIABLES	-3	-2	-1	0	1	2	3
LOG_LST_YRS	-0.323	-2.905	-1.032	-0.124	-0.930	0.508	-0.349
	(1.155)	(1.952)	(1.244)	(1.542)	(1.238)	(1.229)	(0.622)
DA_DMY	-2.598*	4.848**	-0.197	0.740	-1.346	-2.986**	0.744
	(1.363)	(2.303)	(1.467)	(1.819)	(1.460)	(1.450)	(0.734)

Lag_Q_YRLY	-1.603	-0.402	0.654	2.960	1.135	2.116	-0.706
	(1.530)	(2.587)	(1.648)	(2.042)	(1.640)	(1.629)	(0.824)
LOG_MKT_SIZE	0.543	3.657**	1.261	-0.260	0.682	-1.219	0.379
	(0.968)	(1.637)	(1.042)	(1.292)	(1.037)	(1.030)	(0.522)
LOG_MKTCAP	-0.274	-4.237**	-1.035	0.114	-0.371	1.669	-0.075
	(0.984)	(1.663)	(1.059)	(1.313)	(1.054)	(1.047)	(0.530)
ISSUEMKTCAP	-2.251	-10.988*	-4.161	-1.208	-1.995	3.555	-0.814
	(3.663)	(6.192)	(3.944)	(4.889)	(3.925)	(3.899)	(1.973)
LEV	-0.171	-2.359**	-0.645	0.064	-0.275	0.892	-0.427
	(0.583)	(0.985)	(0.627)	(0.778)	(0.624)	(0.620)	(0.314)
GDP	67.632	136.062	-28.092	-38.513	-43.097	-82.664	-3.283
	(51.534)	(87.121)	(55.494)	(68.785)	(55.220)	(54.849)	(27.766)
Observations	49	49	49	49	49	49	49
R-squared	0.217	0.281	0.163	0.161	0.164	0.278	0.142
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

MAURITIUS							
				Years			
	Return on Equity (ROE)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	3.491	1.460	-30.637	-24.917	-2.461	-0.917	-1.147
	(3.441)	(7.914)	(20.310)	(15.802)	(2.405)	(1.267)	(0.982)
DA_DMY	-0.403	0.179	5.919	3.568	-0.166	-0.100	-0.012
	(1.207)	(2.776)	(7.123)	(5.542)	(0.844)	(0.444)	(0.344)
Lag_Q_YRLY	-1.150	-0.847	-3.396	2.223	-1.548	-0.077	-0.428
	(2.436)	(5.602)	(14.377)	(11.186)	(1.702)	(0.897)	(0.695)
LOG_MKT_SIZE	0.764	-2.430	9.993	2.076	0.330	0.316	0.248
	(1.034)	(2.379)	(6.105)	(4.750)	(0.723)	(0.381)	(0.295)
LOG_MKTCAP	-0.488	1.238	-2.068	4.492*	0.282	0.058	0.044
	(0.522)	(1.201)	(3.081)	(2.397)	(0.365)	(0.192)	(0.149)
ISSUEMKTCAP	-106.705***	-168.574**	-616.566***	363.387**	5.414	-2.710	-1.177
	(30.615)	(70.412)	(180.698)	(140.591)	(21.398)	(11.273)	(8.733)
LEV	0.191	1.027	-4.338**	-7.511***	0.004	-0.057	-0.062
	(0.283)	(0.650)	(1.669)	(1.298)	(0.198)	(0.104)	(0.081)
GDP	-131.305	162.292	-136.728	-196.877	6.911	-27.376	0.849
	(103.280)	(237.537)	(609.586)	(474.286)	(72.186)	(38.029)	(29.462)
Observations	69	69	69	69	69	69	69

R-squared	0.280	0.266	0.398	0.447	0.087	0.099	0.105
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

GHANA							
				Years			
	Return on Equity (ROE)						
VARIABLES	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
LOG_LST_YRS	-4.995	-26.751**	-37.616	-17.563	-2.057	-31.200	0.526
	(9.210)	(10.843)	(27.456)	(18.175)	(7.042)	(20.058)	(0.739)
DA_DMY	-2.594	-5.264	9.068	-4.919	1.529	-2.507	-0.056
	(2.643)	(3.111)	(7.878)	(5.215)	(2.021)	(5.755)	(0.212)
Lag_Q_YRLY	2.712	-0.718	-4.281	-0.443	-0.258	0.580	0.070
	(2.238)	(2.635)	(6.672)	(4.417)	(1.711)	(4.875)	(0.180)
LOG_MKT_SIZE	-1.416	8.052**	5.571	2.791	0.361	7.509	-0.276
	(2.581)	(3.038)	(7.693)	(5.093)	(1.973)	(5.621)	(0.207)
LOG_MKTCAP	1.273	-0.484	3.273	1.974	0.543	0.448	0.081
	(1.136)	(1.337)	(3.386)	(2.241)	(0.868)	(2.474)	(0.091)
ISSUEMKTCAP	5.422	-12.947*	-2.935	-0.469	1.273	-13.215	0.636
	(5.942)	(6.996)	(17.713)	(11.726)	(4.543)	(12.940)	(0.477)
LEV	0.542	-2.712**	-1.250	-0.579	-0.168	-0.589	0.113
	(0.998)	(1.175)	(2.975)	(1.969)	(0.763)	(2.173)	(0.080)
GDP	133.410***	-38.874	123.757	22.497	-33.157	-35.012	3.505
	(40.266)	(47.408)	(120.040)	(79.463)	(30.788)	(87.696)	(3.232)
Observations	18	18	18	18	18	18	18
R-squared	0.675	0.502	0.471	0.310	0.346	0.391	0.373
Standard errors in parentheses							
***** p<0.01, ** p<0.05, * p<0.1**							

KENYA							
				Years			
	Return on Equity (ROE)						
VARIABLES	-3	-2	-1	0	1	2	3
LOG_LST_YRS	-0.416	0.920	-0.651	0.437	-24.076*	-28.640**	-2.660
	(2.744)	(2.659)	(2.120)	(2.215)	(13.379)	(12.807)	(3.538)
DA_DMY	1.763	-1.764	-0.127	-1.268	14.406	15.314	-7.735*
	(3.039)	(2.944)	(2.347)	(2.453)	(14.817)	(14.183)	(3.918)
Lag_Q_YRLY	10.885***	-2.289	4.113	4.273	4.795	-8.006	2.869
	(3.653)	(3.539)	(2.822)	(2.949)	(17.812)	(17.050)	(4.710)
LOG_MKT_SIZE	-4.605*	4.259	-1.855	-2.497	-0.081	5.969	-4.000
	(2.643)	(2.561)	(2.042)	(2.134)	(12.888)	(12.337)	(3.408)
LOG_MKTCAP	1.707	-1.240	0.752	0.600	6.782	7.952	4.265***
	(1.138)	(1.102)	(0.879)	(0.918)	(5.547)	(5.310)	(1.467)
ISSUEMKTCAP	0.601	-0.696	0.325	0.206	3.181	3.728	1.965**
	(0.552)	(0.534)	(0.426)	(0.445)	(2.689)	(2.574)	(0.711)
LEV	-0.655	-1.973	-0.852	-0.454	-11.591	-16.472*	-7.112***
	(1.903)	(1.843)	(1.470)	(1.536)	(9.276)	(8.879)	(2.453)
GDP	-0.135	-49.133	59.386	102.815*	-74.955	-203.339	83.625
	(73.177)	(70.896)	(56.522)	(59.069)	(356.784)	(341.525)	(94.354)
Observations	33	33	33	33	33	33	33
R-squared	0.415	0.254	0.239	0.268	0.206	0.295	0.376
Standard errors in parentheses							
*** p<0.01, ** p<0.05, * p<0.1							