

**CASH FLOW INFORMATION, DISCRETIONARY ACCRUALS AND
STOCK RETURN OF FIRMS LISTED IN NAIROBI SECURITIES
EXCHANGE, KENYA**

BY

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**A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS AND
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DECLARATION

Declaration by the Candidate

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DEDICATION

I dedicate this research work to my wife Hellen, my daughter Edith, my sons Victor and Ryan for their immense support and understanding during the entire period of my study. They are the pillars of my strength that gave me the power and will to spend sleepless nights to write this thesis. I also dedicate this work to my parents who taught me the basic tenets of life; to always work hard and the virtue of honesty at a very tender age.

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ABSTRACT

Investors associate successful companies exhibiting high stock returns in the stock market to sound cash flow information. The only motives that attract an investor to invest in the stock market is to get high stock returns. However, most firms in Kenya displayed declining stock returns over time and has posed great challenge to investors' decisions in the stock market. Consequently, this phenomenon has made investors to question whether cash flow information outlined in the cash flow statement influence stock returns. The purpose of the study was to establish the effect of cash flow information on stock return and test the moderating effect of discretionary accruals on the relationship between cash flow information and stock return. The specific objectives were to establish the effect of operating cash flow on stock return, to determine the effect of financing cash flow on stock return, to evaluate the effect of investing cash flow on stock return, to establish the effect of discretionary accruals on stock returns and to test the moderating effect of discretionary accruals on the relationship between operating, financing, and investing cash flows on stock return of firms listed in NSE. Market efficiency, Signaling and Agency theories guided this study. Positivism research philosophy was utilized by this study and explanatory research design taking longitudinal approach was adopted to collect secondary data from 29 listed non-financial firms at NSE for 12 years from 2007-2019. The findings indicated that operating cash flow ($\beta=0.339$, $p=0.000<0.050$), financing cash flow ($\beta=0.447$, $p=0.000<0.050$) and investing cash flow ($\beta=0.098$, $p=0.011<0.050$) had a positive and significant effect on stock return of firms listed at NSE. Further, discretionary accruals positively moderate the relationship between operating cash flow and stock returns ($\beta=0.170$, $p=0.022<0.050$) and negatively moderates the relationship between investing and financing cash flows ($\beta=-0.140$, $p=0.007<0.050$) and ($\beta=-0.140$, $p=0.000<0.050$) and stock return respectively. The study concludes that cash flow information significantly affects stock return and discretionary accruals moderates the relationship between cash flow information and stock return. The study, therefore, recommends that firms should prioritize allocation of more resources towards capital projects to enhance stock return, investor confidence and trust that the firms are well financed. Additionally, the study recommends that managers of firms listed in NSE should avoid speculating and signalling the market about future performance using discretionary accruals because there is evidence that discretionary accruals have detrimental moderating effect on the relationship between cash flow information and stock returns in Kenya.

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ABBREVIATION AND ACRONYMS

APT	Arbitrage Pricing Theory
CAPM	Capital Asset Pricing Model
CCAPM	Consumption-Oriented Capital Asset Pricing Model
CFR	Cash Flow Restatement
CMA	Capital Markets Authority
DA	Discretionary Accruals
EM	Discretionary accruals
FCF	Financing Cash Flows
IAS	International Accounting Standards
GAAP	Generally Accepted Accounting Principles
IASC	International Accounting Standard Committee
IDX	Indonesia Stock Exchange
IFRS	International Financial Reporting Standards
NPV	Net present value
NSE	Nairobi Securities Exchange
OCF	Operating Cash Flows

OPERATIONAL DEFINITION OF TERMS

Cash Flows Information: This refers to an entity's cash receipts (inflows) and cash payments (outflows), that affects cash and cash equivalents for the period for which the financial statements are presented and are classified into operating, financing, and investing cash flows in the cash flow statement (IAS 7, 2017).

Discretionary accruals: This is a deliberate intervention in the financial reporting process by managers to achieve private goals. Also, it could be defined as a conduct that is carried out by management to influence the cash flows that occur in income to address the deviations which are not normal, through the selection of certain accounting policies (Moss, 2016).

Financing Cash Flows: These are cash receipts and payments resulting from change of equity capital and borrowings structure of the entity (IAS, 2017).

Investing Cash Flows: These are cash receipts and payments resulting from acquisition and disposal of long-term assets and other investments that are not considered to be cash equivalents (such as property, plant and equipment) and other noncurrent assets including investments. Cash advances and collections on loans made to other entities also falls in this category (IAS 7, 2017).

Operating Cash Flow: These are cash receipts and payments resulting from the main revenue producing operations of the entity that are not investing or financing and include cash received from customers and cash paid to suppliers and employees (IAS 7, 2017).

Stock return: This refers to the rate of compensation an investor receives for postponing current consumption and investing in a company's shares. Stock return fluctuates with the changes in the prevailing market price of a share (Utomo *et al.*, 2018).

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter presents the background of the study, statement of the research problem, research objectives, research hypotheses, significance, and scope of the study.

1.2 Background of the Study

Stock return is a crucial factor considered by investors in investment decisions. Stock returns reflect the collective assessment of investors of a firm's current stock return and prospects (Rahmawati and Handayani, 2017). According to Tan *et al.*, (2012), Husman (2012) and Saewdi *et al.*, (2010) the only motive that attracts an investor to invest in the stock market is to get high returns. Equally, Berggren and Bergqvist (2014) espouses that stock market returns predicts future state of the economy, including the economic and financial status to existing and potential investors.

Rieke *et al.*, (2020) suggests that firms that exhibit positive future prospects of high stock returns are preferred by the capital markets in the allocation of capital. According to Tahmoorespour *et al.*, (2015) market players in the financial market utilize stock market indices to explain movements in the economy based on stock market behaviour to compare and contrast returns on specific investment. However, stock market returns are more ideal since they facilitate traders and investors to measure and gauge the rapid inflow of information in the stock market (Umutlu, 2015).

According to Sinan (2020) stock return refers to the rate of return, otherwise, called return on investment that the investor earns in a given financial year from investing in shares of a certain firm, whose values vary with the changes in the prevailing stock

prices in the stock market. Return on investment represents income earned by investors in the stock market and measure stock return and may be in the form of profits realized from trading in shares or dividends received (Li *et al.*,2014).

Several factors which arrive randomly to the stock market affect stock return, for example financial policy, monetary policy, foreign trade policy, financial information, risk rate, market conditions and market performance. However, from these factors, financial information specifically cash return shown in the cash flow statement is one of the main elements used by investors in making investment decisions (Utomo *et al.*, 2018; Aryanti, Mawardi and Andesta, 2016; Maryyam,2016; Purnamasari, 2015; Hamid *et al.*, 2014; Gupta & Modise, 2013).According to International Accounting Standard Committee (IASC) it is mandatory for every company to prepare cash flow statement to capture operating, investing and financing information as part of the financial report in a particular period. The Capital Markets Authority of Kenya adopted this policy in 2001 and made it compulsory for all firms listed in NSE (Outa, 2011). Cash flow statement provides crucial information to providers of capital concerning the firms' liquidity and capability to generate cash in future (Ball, Gerakos, *et al.*, 2016).

According to Ardian *et al.*, (2014) and Al-Khalaileh (2013), cash flow statement contained in the annual financial reports is the source of information that proclaims the capability of the firm to generate positive cash flows and profitability trend in the future hence can influence investors' judgments to invest in the stock market. Likewise, market efficiency theory points that when financial results of a firm are announced, some speculations appear that ultimately influence stock prices. This was affirmed by Scot *et al.*, (2011), Croce, *et al.*, (2015) and Corhay, *et al.*, (2015) in their

studies that revealed that publicly announcing financial results on the US market leads to a significant variation of stock returns immediately.

Numerous research studies have been carried out globally on the relationship between cash flow information and stock return. For instance, Fawzi (2015), Collins (2014) and Kheirandish *et al.*, (2014) reported that there was a positive association between cash flow information and stock return. Kroes and Manikas (2014) did a research study about the relation of investing cash flow to stock returns and the findings revealed that investing and financing cash flows significantly affected stock returns. Shi (2014) arrived at conflicting results that financing cash flow has no effect on stock returns.

Cheng *et al.*, (2013) carried out a study in the USA that revealed that earnings level is significantly related to stock return than earnings change. Likewise, Habib (2011) found that there is a positive influence of free cash flow on stock return in Australia. Another research by Utomo *et al.*, (2018) showed that operational and financial cash flow positively affect stock returns while investment cash flow negatively affects stock returns in Indonesia. A study by Khanji *et al.*, (2015) yielded contrary results and revealed limited effect of operational, investment, and financing cash flows on the share market value of Jordanian commercial Banks. Similar results were found by MoradzadeFard *et al.*, (2010) who showed that there is no significant relationship between free cash flows and firms' stock price. On the same breath, a study by Al-Saedi (2014) found out that cash flow statement is irrelevant to investment decisions made by Iraqi investors because there is no significant statistical relationship between cash flows and their market value.

According to agency theory shareholders can evaluate the firm's financial performance through the annual accounts and reports announced by the management. The main objective of a firm is to maximize shareholders wealth hence managers are likely to apply discretionary accrual (DA) practices to create a positive impression regarding the future performance of the firm's shares (Syantih *et al.*, 2017). As a result, investors will reward them based on stock return reflected in stock prices when annual financial results are released.

Conversely, Rahimipour, (2017) posit that investors are interested to see how much earnings are generated by the firm per share reflected in stock return rather than to know how firms utilize assets to generate earnings. Consequently, because earnings are the main goal of investors, numerous studies have associated opportunistic discretionary accrual (DA) phenomenon to firm managers (Wu, 2014 & Chalak *et al.*, 2013), thereby creating a deceitful financial position of the firm. DA occurs when manager use valuation using alternative accounting methods permitted by the Generally Accepted Accounting Principles (GAAP) in financial reporting and in preparing transactions to either raise or lower the company earning, to mislead some stakeholders about the economic performance of the underlying firm on the accounting numbers reported (Hastuti *et al.*, 2018; Jiang *et al.*, 2018; Rina *et al.*, 2015; Pornsit *et al.*, 2008 & Cupertino *et al.*, 2000).

Correspondingly, Ghazali *et al.*, (2015) suggests that discretionary accruals may be beneficial to investors and other stakeholders in instances where accurate information regarding firm profitability, leverage and liquidity (cash flow information) is communicated by managers. Regarding this view, managers may manage income efficiently motivated by shareholders demand for higher earnings that subsequently

improves the firms stock buying decisions and performance in the stock market (Rina *et al.*, 2015). Chung (2019) documents that Discretionary Accruals moderate the relationship between information asymmetry and stock return resulting to enhanced investor confidence in the firm from the informed and uninformed investors hence high stock liquidity and return. Contrary findings were found by Ekpulu *et al.*, (2018) study in Nigeria which argued that DA has remained a major threat to the credibility of financial statements.

Some studies have shown that DA and stock return are inversely related, while others suggest positive relationship (Wali, 2017). For instance, Subramanyam (2014), Chan *et al.*, (2016) and Scott, (2015) studies depicted that DA and stock returns are positively related. On the other hand, the findings of Sochelan, (2017) reported contradictory results. Other studies have introduced the concept of DA and its effect on cash flows and stock returns. For instance, Bazrafshan (2016) explains that companies that are performing discretionary accruals with opportunistic goals for the short term will increase the value of the company and get a positive return. Equally, Utomo and Pamungkas, (2018) found evidence in Indonesia that DA was able to moderate the relationship between both the operational and financing cash flow on stock returns but had no effect on investing cash flow and stock returns. Likewise, Sinan Suleiman, (2020), found contrary results in Jordan and documented that DA do not have a significant moderating effect in the relationship between cash flow information and stock returns.

Comparatively, Idris and Bala (2015) revealed there is no consensus as to which single or combination of variables best explains stock return. Equally, Kasmiasi and Santosa, (2019) explains that discretionary accruals is a measurement model used by

investors to assess firm performance and stock returns in the financial market (firm evaluation). In firms where one party has information regarding the internal and external factors that may affect the future performance, it results to losses incurred from firm transactions (Cohen and Lys, 2016; Yuan and Cheng,2016). Therefore, external investor forecasts that adversely affects stock returns can be reversed by discretionary accruals used by firms to convey superior information to the market.

Based on the conflicting results in previous studies on the effect of cash flow information on stock returns, and the evidence in literature that DA and stock returns are associated, it becomes intriguing therefore, to investigate further whether the presence of DA strengthens or weakens the relationship between cash flow information and stock return against a backdrop of mixed and inconclusive results of empirical studies done in advanced economies. More so, evidence in emerging economies such as Kenya is conspicuously lacking. The focus of this study is therefore to test the moderating effect of DA on the relationship between cash flow information and stock returns of firms listed in NSE.

1.2.1 Nairobi Securities Exchange

Capital Markets Authority (CMA) has the mandate of overseeing its member firms. Currently, the Nairobi Securities Exchange (NSE) has 67 listed firms in 14 different sectors. The Nairobi Securities Exchange (NSE) was established in 1954 and is the only stock market in Kenya mandated to deal with different securities for public listed companies. The NSE acts as a trading platform for trading in securities where investors earn returns on their investment through capital gain or annual dividends declared by their firms. According to NSE report (2013), exemplary performance of NSE have been recorded in the recent years due to high stock returns and has become

an important constituent in Kenya's economy and any changes in this market as a ripple effect on organizations and households in Kenya. There are 67 firms currently listed at NSE listed under the following sectors: agricultural, commercial and services, construction and allied, energy and petroleum, insurance, investment, investment services, manufacturing and allied, telecommunication, automobile and accessories and real estate (NSE, 2017). NSE deals with both primary and secondary securities that are either variable or fixed in nature.

According to the NSE (2014), securities for firms listed at NSE may be suspended or delisted due to their failure to adhere to the prescribed rules and procedures. These regulations outline that firms are expected to abide to the continuous listing obligations among them disclosure of periodic financial information, sound liquidity portrayed through cash flow information, adherence to international financial reporting standards and miscellaneous provisions among others (Zainal- Abidin, Kamal & Jusoff, 2012). Failure to adhere to these obligations, besides other rules have seen firms both listed and unlisted at the NSE put under statutory management. The financial health of a firm is a key consideration for its continued listing in the NSE and thus evaluation of the firm ability to generate sufficient cash to meet its short-term financial obligations and the stock return of these listed firms is important to ensure that investors do not lose their money by investing in profitable firms, yet the firms have negative stock return due to liquidity challenges (Shehu & Ahmad, 2013). Thus, this study focused on the moderating effect of discretionary accruals on relationship between cash flow information and stock return among non-financial firms listed in NSE.

1.3 Statement of the Problem

Stock return reflects the expectation of investors' judgments in making investment decisions (Kuwornu, 2016). Investors associate successful companies exhibiting high performing stocks in the stock market to sound earnings and cash flow information (Utomo & Pamungkas, 2018). As such it is imperative to understand that consistent increase in firms future stock returns, sound financial health, corporate sustainability and growth depend on earnings and cash flow information (Hastuti *et al.*, 2018, Liang & Pathak, 2016). More so, extant literature has linked cash flow information and stock returns (Gerakos, *et al.*, 2016; Purnamasari, 2015; Hamid *et al.*, 2014 & Al-Khalaileh, 2013).

However, most firms in emerging economies including Kenya have displayed declining stock returns over time which is a challenge to investors (Capital Market Authority, 2018). For example, Kenya Airways Limited was tagged as the worst performing stock in 2017 with a 58.7% decline in share price (Omondi, 2018). Other companies listed at NSE that recorded substantial decline in stock prices over the period include Kenya Power, Uchumi supermarkets, Mumias sugar, Deacons, CIC Insurance and East Africa Cables among others (NSE,2018). Comparatively, Countries like Egypt, Nigeria, South Africa and Uganda registered quantifiable drop in stock prices at the rate of 67%, 24% and 21% respectively (AU Commission,2009; Hezron, 2009). Consequently, this phenomenon has made investors to question whether cash flow information outlined in the cash flow statement influence stock returns better than the income statement that firms have traditionally been using to predict stock returns. This therefore creates a gap for researchers to investigate whether cash flow information influence stock returns to increase or decline in individual firms.

Several studies have been done on the relationship between cash flow information (operating, investing and financing) and stock return and have yielded mixed and inconclusive results. For instance, Utomo *et al.*, (2018), Kariuki *et al.*, (2018) and Nwakaego (2015) results revealed that operating and financing cash flow are positively and significantly related to stock returns but investing cash flow are significantly and negatively/not significantly related to stock returns in Indonesia, Kenya and Nigeria, respectively. These results were contrary to Kroes and Manilak (2014) and Chi (2014) findings that reported significant and non-significant relationship between investing and financing cash flows and stock returns, respectively. Another study by Khanji *et al.*, (2015) yielded contrary results and revealed limited effect of operating, investing and financing cash flows on the share market value of Jordanian commercial banks. Similar results were found by MoradzadeFard *et al.*, (2010) who indicated that there is no significant relationship between cash flow and firm's stock price. Comparative results were recorded by Al-Saedi (2014) who found out that cash flow statement is irrelevant to investment decisions made by Iraqi investors because there is no significant statistical relationship between cash flow information and stock market value.

Despite the conventional dependency of firms' earnings by investors in making investment decisions, evidence from existing literature has further shown that globally, managers may engage in discretionary accruals (Man & Wong, 2013; Gulzar, 2011 & Bhaumik *et al.*, 2010), thereby generating fraudulent financial statements of the firm. Whereas some empirical evidence has shown that discretionary accruals moderate the relationship between cash flow information and stock returns (Utomo *et al.*, 2018; Alzoubi, 2016; Abbadi *et al.*, 2016 & Abed *et al.*, 2012), other

scholars such as Bazrafshan (2016) has suggested otherwise. This evidence is conspicuously lacking in Kenya.

Further, based on Idris and Bala (2015) suggestion that there is need for future studies to include other variables and/or moderators, and the divergent findings in literature, it will be intriguing to probe deeper and test the role of discretionary accruals on the relationship between cash flow information and stock returns. Thus, the main aim of the study was to test the moderating effect of discretionary accruals on the relationship between cash flow information and stock return of non- financial firms listed in NSE, Kenya.

1.4 General Objective

The general objective of the study was to establish the effect of cash flow information on stock return and to test the moderating effect of discretionary accruals on the relationship between cash flow information and stock return of firms listed in NSE.

1.4.1 Specific Objectives

This study pursues the following specific objectives.

1. To establish the effect of operating cash flow on stock return of firms listed in NSE.
2. To determine the effect of financing cash flow on stock return of firms listed in NSE.
3. To evaluate the effect of investing cash flow on stock return of firms listed in NSE.
4. To establish the effect of discretionary accruals on stock return of firms listed in NSE.

- 5 (a) To establish the moderating effect of discretionary accruals on the relationship between operating cash flow and stock return of firms listed in NSE
- (b) To establish the moderating effect of discretionary accruals on the relationship between financing cash flow and stock return of firms listed in NSE
- (c) To establish the moderating effect of discretionary accruals on the relationship between investing cash flow and stock return of firms listed in NSE

1.5 Research Hypotheses

This study sought to test the following null hypotheses.

- H₀₁:** Operating cash flow has no significant effect on stock return of firms listed in NSE
- H₀₂:** Financing cash flow has no significant effect on stock return of firms listed in NSE
- H₀₃:** Investing cash flow has no significant effect on stock return of firms listed in NSE
- H₀₄:** DA has no significant effect on stock return of firms listed in NSE
- H_{05a}:** Discretionary accruals has no significant moderating effect on the relationship between operating cash flow and stock return of firms listed in NSE
- H_{05b}:** Discretionary accruals has no significant moderating effect on the relationship between financing cash flow and stock return of firms listed in NSE

H_{05c}: Discretionary accruals has no significant moderating effect on the relationship between investing cash flow and stock return of firms listed in NSE

1.6 Significance of the Study

This study scrutinized stock return question in firms listed in NSE for twelve years from 2007 to 2019, thus increasing the time frame for this investigation. Previous studies on this subject used a shorter period of five years (Santoso, 2018 & Al-saedi, 2014); therefore, this research is anticipated to contribute to literature on the current happenings in the stock market regarding stock returns in emerging economies in Africa, specifically Kenya. Following Sinan Suleiman Abbadi (2020) recommendation for further inquiry in other sectors, this study sought to investigate whether discretionary accruals moderate the association of cash flow information and stock return in non-financial firms listed in NSE.

This research is necessary to firms listed in NSE and firm managers, policymakers, investors, future researchers, and academicians. For managers in different companies listed in NSE in Kenya, the findings of this study provide essential information for decision making on matters relating to cash flow information and discretionary accruals for optimal stock return. More so, it provides critical knowledge on the cash flow information that enhances stock return, thus informing management to come up with proper decisions and strategies pertaining to cash flow information mix and discretionary accruals that maximize shareholders wealth through stock return.

Conversely, the findings benefit investors on the use of financial statements of firms to determine levels of cash flows that reduces the degree of risks arising from financial policy adopted by managers of these firms. It also benefits investors to make

prudent investment decisions regarding stock investments, and which firms to buy shares from.

Further, the findings from this study play a key role in directing the formulation and implementation of policies and procedures on cash flow information and discretionary accruals in all non-financial firms. This research informs the NSE on the appropriate policies that would spur stock return in the country. Additionally, the results of this study are vital to NSE to recognize the contributions made by cash flow information and discretionary accruals on stock return in firms listed in the different non-financial sectors.

Finally, the findings of this study are imperative to future researchers and academicians as a source of reference since few studies have been conducted locally on cash flow information and stock returns and no known study have tested the moderating effect of discretionary accruals on the relationship of the predictor and dependent variables. The findings of this research further contribute to new knowledge in literature on the contemporary issues in the stock market relevant to stock return and provides recommendation and suggestions on areas of further research.

1.7 Scope of the Study

The study focused on the moderating effect of discretionary accruals on the relationship between cash flow information and stock return of non-financial firms listed in NSE. Financial firms were excluded because of the additional regulations that govern their cash management. The study was limited to the three cash flow information namely, operating cash flow, financing cash flow and investing cash flow and covered a period of twelve (12) years from 2007-2019. According to Kenya

companies Act, CAP 484, it is a legal requirement for all listed companies to submit and publish audited accounts annually and this legal provision enabled the researcher to obtain the required secondary data from the financial statements. Further, for the company to qualify to be included in the study, it must have been listed at the NSE on or before 2008, must have published their audited financial statement continuously for the twelve years under study, must have not been suspended or delisted from NSE during the period and should have not changed the name during the study period. Only companies whose financial statements contain all the required data in all the twelve years were considered.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a literature review of discretionary accruals, cash flow information and stock return. It outlines the meaning of the concepts: discretionary accruals, cash flow information and stock return as well as their theoretical and empirical evidence. Further, the chapter presents an in-depth examination of the relationship between cash flow information and stock return as well as the investigation of the moderating effect of discretionary accruals on the relationship between cash flow information and stock return. Finally, the chapter presents a conceptual framework that reflects the hypotheses formulated in the study.

2.2 Concepts of Stock Return

Stock return is a field of study which has sparked the interest of many academics in the recent years. Husman (2012) contends that investors within the stock market expend their savings with the speculation of yielding earnings. Based on Li, *et al.*, (2014) these earning measures stock return and is coined “stock returns” which may take the form of proceeds accrued from trading of shares or the dividends acquired and may be awarded to shareholders once every three months. Zhu (2013) posits that there is a guarantee of the stock returns being influenced by several contingencies taking place in a nation as well as events taking place globally. Cash flow statements comprise the typical financial statements reporting the cash received and fluctuation of cash yielded from operating, investments as well as funding assets of an enterprise within a particular duration. The Public Sector Accounting Standard Board of Kenya (PSASBK) No. 2 declares cash flow to be a statement that presents verifiable

knowledge regarding the changes in cash and cash equivalents of an organization, via a cash flow statement that categorizes cash flows depending on investment knowledge, information on operations and well as financing knowledge throughout an accounting period. Cash flow statements are deemed to carry a wealth of knowledge regarding the firm's capacity to earn revenue as well as potential liquidity. Based on Fawzi *et al.*, (2015) the cash flow statement makes available pertinent information concerning an organization's cash receipts and allotments throughout a specific period, categorizing transactions on the basis of financing, investing and operating knowledge.

Financial performance of a firm stock is assessed using stock returns. The organization's financial goal is to increase investment proceeds, which are demonstrated by the variation in the firm's stock prices. Ross *et al.*, (2010) postulates that, in the financial market, return of stock traded comprises two parts, namely the normal, otherwise known as expected returns and the risky or uncertain returns. The normal returns are contingent on the knowledge held by investors that reflects on the stock and are based on the market understanding of the important components that are bound to impact the stock in the subsequent year whereas the risky part hails from unforeseen knowledge publicized in the course of the year, for instance; profit warning announcement (Hong and Sraer, 2016).

Atmaz and Basak, (2018) assert that stock returns are, approximately, more substantial in developing markets as compared to developed economies which comprise of the United States, European Union as well as Japan. In line with an alternate review carried out by Lim (2009) there is a rapid increase and low linkages between developing markets within the South-East Asian regions, which provides

lower portfolio risk and considerable stock returns for global investors. This ensures their stock markets are interesting for both local as well as global investors looking for new prospects for expanding their portfolio. Additionally, another research performed by Auzairy, Ahmad and Ho (2011) declared that investors have been rather keen on developing economies within the sub-Saharan region, particularly Kenya.

Scientific studies have proven that stock return is foreseeable cross-sectional and through time. Deliberations regarding stock price behaviour speculation were initiated through Portfolio Selection theory article authored by Markowitz (1952). This theory has been criticised by economists because it demands considerable effort to conduct data analysis and given the historical data employed, the speculation is bound to have errors. Furthermore, the presumption that stock returns are normally distributed is inaccurate.

The CAPM (Capital Asset Pricing Model) by Sharpe (1964), Lintner (1965) and Mossin (1966) is a simple model that is built on logical reasoning and has the following assumptions which are not feasible in the market; all investors have the same information, information is free, and no taxes or costs are exacted on transactions. APT (Arbitrage Pricing Theory) as opposed to CAPM provided a more suitable estimations for stock returns. Arbitrage Pricing Theory is ideal for projection stock return/asset risk and has several factors which affects stock returns that are unlimited. Whereas Capital Asset Pricing and Arbitrage Pricing Models relates to one period, Consumption -oriented capital asset pricing model (CCAPM) address the multi-period aspects of the market and clarify stock return propensities using a feasible extension of APT.

One of the most fundamental elements in evaluating investment is stock returns or otherwise fluctuation in stock prices. Stock return can be explained as the profit levels that are accrued to a shareholder. Stock returns are employed to assess how the firm stock performs. The organizations' financial goal is to bolster return on investments. According to Ross *et al.*, (2010) stock return is comprised of the normal and the expected return and is informed by the knowledge held investors in the stock market.

Similarly, Tan *et al.*, (2012) defines actual return as return on investment that has been realised and expected return to mean future earnings that are uncertain. Compensation on capital foregone to buy shares is the main motivation for benefactors sinking money into a project. Stock investments is beneficial in two ways. First, sell stocks until the prices shoot, ordinarily referred to as capital gains. The second one involves waiting on dividends that form part of the organization's revenue allotted to its stakeholder, described by Joegiyanto (1998) as returns that shareholder gain on previously made investments. If not for the proceeds promised to investors, they would have never made investments. Therefore, any investment, short or long-term is predominantly intended to yield returns, whether direct or indirect.

The number of stock returns is visible from the abnormal return gained by shareholders in line with the incidence of stock split events. Abnormal return is the variation in the actual return obtained and the expected return. Positive abnormal returns signify the occurrence of stock split events. Abnormal return denotes that which is anticipated; it is referred to a negative abnormal return. Assessing abnormal returns draws on the market-adjusted model. Based on this model, there is an assumption that the best predictor for return on security is the current market index. In case the market index during the annunciation duration is 10%, the return of all

securities speculated at the same time is equivalent to a 10% market index return. If the return of a security at the same time is 25, the abnormal return for the security is 15% (Jogiyanto, 2015). Various reviews regarding research of events also employ abnormal accumulated returns. Cumulative abnormal return (CAR) is the aggregate abnormal returns of the previous day in the event period for each security (Jogiyanto, 2015).

Stock return is measured as the ratio of the monthly last price for the security. To make the stock return into annual stock price, the average of all monthly stock prices for each year must be used. Holding period return, according to Pinto *et al.*, (2013) is the return received from putting money into an asset for a stipulated duration. This duration is referred to as the holding period being considered whether it's a day, a month, a year or whatever period. The stock return includes change in the value of a stock (capital gain yield) and cash dividend paid during the period.

2.3 Concept of Discretionary Accruals

There are different concepts for Discretionary Accruals (DA). It is sometimes known as “cooking the books” Moss (2016). Furthermore Schipper (1989) defined it as a deliberate intervention in the financial reporting process to achieve private goals. Also, it could be defined as a conduct that is carried out by management to influence earnings that occur in income statement to address the deviations which are not normal, through the selection of certain accounting policies. It means that managers make financial transactions that would conceal the underlying value of the company or influence the allocation of resources. DA could be applied to influence the accounting numbers by taking advantage of the flexibility allowed by the accounting

policies. Agency theory according to Fite and Pflleiderer, (1995) outlines that distinct DA rules affect firm performance.

Discretionary accruals is a form of opportunist behaviour of the administration during the preparation of external financial reports in a bid to raise or reduce accounting proceeds in line with their interests or otherwise to earn some merit for the welfare of individuals. Wang *et al.*, (2014), elucidates that discretionary accrual take place when the directors employ various determinants to adjust financial statements in order to influence the level of earning to certain stakeholders regarding the prevalent economic firm performance, or to alter the result of a contingent agreement on reported accounting numbers. Discretionary accruals can be affected through exercising leniency when employing accounting techniques and protocol, formulating accounting policies and speeding up or putting off expenses as well as profits to reduce firm profits.

According to Dutzi and Rausch (2016), Siddharth Mohapatra (2011) and Verbruggen *et al.*, (2008) there are four categories used for DA: (1) explicit accruals, where managers are permitted to make specific provisions such as bad and doubtful debts (2) allocation and transfer of income relating to cost centres to manipulate income (Krull 2004) (3) disclosure management, where managers may reveal some positive information to the investor, by conveying figures in a specific manner, and (4) real information where administrators hold the capacity to manipulate figures to give an altered picture to investors, for instance reducing the prices. It is essential to observe that managing accruals entails decisions within the International Financial Reporting Standards (IFRS) that intend to conceal the actual economic performance. Besides (Ruiz, 2016) summarized the major reasons that encourage and

steer DA into the following groups (1) reward and loaning covenants (2) stock markets performance and (3) nature of firms.

Similarly, according to Healy and Wahlen (1999) capital markets, contracting and regulatory motives are the main driver for DA practice, Campa and Camacho-Minano (2015) associates it with internal and external factors, and the management may manipulate earnings, for different motives, namely, contracting, capital markets and capital markets expectations. Contracting motive occurs in instances where existing debt contracts may negatively affect the profitability of the company, and the risk of cancelation is imminent. Capital market motive is driven by evaluation of stocks by using information disclosed by the financial statements which possibly may generate incentives to manipulate the accounting information (Healy and Wahlen, 1999). Capital markets expectations motive on the other hand, may influence companies to manipulate financial statement to avoid losses (Myers, Myers and Skinner, 2017), or decrease profits (Glaum, Lichtblau & Lindemann, 2004).

Similarly, different researcher such as Shuto (2017) attributes DA to managers compensation motive. Opportunist motivation may also play an important role in manipulation of financial statements through DA to achieve self-benefits and thus the need to manage earnings significantly to impact on the real position of an entity. Equally, efficiency motivation when the impact change of financial statements shows the company is in excellent position to achieve a balance between yield and degree of risk and to ensure the survival and continuity in the competitive market.

However, DA is practiced when managers apply information that involves adjusting the timing, structuring actions, and/or financing transactions in a way to influence the output of the accounting system. According to Rahman *et al.*, (2013) this practice

occurs when management select accounting policies that yield expected level of earnings desired by the stakeholders; while Yaping, (2016) points that the practice seeks to achieve the interests of the administration at the expense of shareholders.

Discretionary accruals is considered a bad signal because it decreases the reliability of information in financial statement and managers always use it for reasons that are not understandable. There is, however, a reliance on this phenomenon to convert inside information to a wide range of users, because the costs of exposure to this information are often very costly. Many researchers have discussed this issue in developing countries, such as (Rudra Bhattacharjee, 2012; Joshua & Njeru, 2016). Equally, Nugroho and Eko (2011) showed that DA occurs in companies listed in the Indonesian Stock Exchange. In addition, they found that audit committee did not affect the use of this practice or detect it or limit it. Joshua and Njeru (2016) indicated that contracting motivations, such as bonus system, and regulatory requirements are positively related to DA.

Rudra and Bhattacharjee (2012) on the other hand pointed out that firms that adopt IFRS are more likely to smooth earnings as compared with those that do not. These conclusions may give confidence to regulators to think about the effectiveness of IFRS in reducing opportunities that result in using discretionary accruals. Kassem (2012) stated that management's motives are considered the main driver for all fraudulent information. Additionally, DA practices have negatively affected users' decision because it does not offer the real reality for companies (fanciful). This is consistent with Julio and Yook (2016) who detected that DA does not improve investment decisions. Soheil and Sanusib (2015) considered agency conflict as one of

the most important incentives for DA practice, and management having the capability to manipulate the financial statement.

The most important reasons for discretionary accruals are opportunistic or informational motives. Consistent with Brad *et al.*, (2009) who clarify the reasons for this practice as two folds; the first being opportunistic and the second informational, each of them with different implications. However, Roychowdhury (2006) found evidence that managers practiced manipulating for real information to avoid reporting annual losses and to suggest price discounts to temporarily increase sales. Moreira and Pope (2007) suggested that companies which have bad news show higher DA (manipulation) than companies which have good news.

2.4 Concept of Cash Flow Information

Cash flow forms a critical component of financial management which is essential for the effective performance of establishments. Titman, Keown and Martin (2011) posit that cash flows generate value. Furthermore, Bhandari and Iyer, (2013) contend that they are considered a real input for firm spending. Regarding this, cash can be employed for transactions like salaries and debt, profit allocation, procurement of inventory goods and wage remittance. Bank notes and coins mean cash in day-to-day transactions. Conversely, short term investments and money in the bank are also acknowledged as an essential source of liquidity in accounting and financial evaluation. Vause (2014) notes that the liquid assets of organizations are made up of such assets that are referred to cash equivalents. Libby and Short (2014) reveal that cash equivalents are convertible instruments that are payable in less than three months.

Koirala, *et al.*, (2014) cite in their book, since 1998 cash flow statement was made mandatory to be part of financial statements which include income statement and statement of financial position. Other countries that followed suit in 1992 are Britain and Australia and were expected to publicize cash flow statement along with other financial statements. The Company Act Chapter 2063 of Nepal also warranted Nepalese organizations to publicize income statement alongside other financial statements and it is therefore imperative for each establishment to contrive cash flow statement as a central part of financial statements for the duration which the financial statements are availed.

Munakami (2002) notes that a cash flow statement is a statement demonstrating a firm's movement of cash in operating, financing, and investing activities in a particular period. This statement outlines cash that is earned and disbursed by the firm within a financial year. Financial Accounting Standards Board (FASB) made it a requirement that all broadcasted financial statements ought to entail cash flow statement.

Conversely, Dangol, *et al.*, (2011) declare that a cash flow statement is instrumental in laying out plans for the effective financial operation, it elaborates that's cash flow statement is the aggregate cash flow from operating, investing, and financing information. Cash flow statement reveal cash coming in, outflow and the total balance in a particular phase or any other duration. Koirala, *et al.*, (2014), Munakami (2002) and Dangol (2011) authored diverse books. In their works, they stressed on the significance of publishing cash flow statement, its publication as part of income statement and balance sheet by the company. They made a note of the need, when how and why it ought to be undertaken and presented by the firm. This review is

aimed at discovering the influence of cash flow information on stock return of organizations cited in the Nairobi Securities Exchange and add to the current literature on the significance of cash flow information.

Based on Albrecht (2003) Cash flow is an inventory of the money that come in or is paid out by an organization during a specific phase. This list does not entail non-cash accounting costs for instance depreciation. Cash epitomizes the organization's structural system, in the case it plummets, the business will not prevail. The profitability of an organization does not mean the firm has financial capability to meet its short-term financial obligations. According to Turcas (2011) the ability of a firm to generate current and future cash flow defines its ability to remain solvent and meets its day-to-day financial obligations.

According to Adelegan (2003) firm solvency and liquidity can be measured by its ability to generate cash flows which is fundamental component in firm performance. Cash flow information is beneficial in helping financial statement users to acquire the required information regarding the required financial resources by a firm in a financial period (Ross, *et al.*, 2007). Conversely, cash flow management information is the establishment and analysis employed by firms in monitoring, epitomizing and using the net cash remittance receipts to acquire less cash distributions and spending. The financial performance of an organization is the idiosyncratic of estimate of how well an establishment maximizes on its assets via value addition. Frank and James, (2014) note that manufacturing firms are regarded as the ones that employ parts and elements or transform raw materials both essential and reclaimed to come up with finished commodities for consumers.

In accordance with the above literature, reliable cash flow management information is instrumental in sustaining optimal cash amount imperative to the achievement of greater competitive advantage (Okello and Uwondo, 2013). Effective cash management is essential since storing idle cash reduces returns, higher financial costs accrue from insurance costs relating to insuring of cash resources. Although some firms still take part in preparing cash forecasts, their impact can affect the organization's financial performance in a positive or negative way.

Cash flow and cash management has gained interest worldwide likewise in the local commercial activities. Darek (2012) states that in Poland, matters pertaining to cash flow have recently been a cause for concern particularly cash management which impacts daily running of the firm, which is essential in attaining improved performance. According to Zhous (2012) there is a rising need for regulators to formulate cash management systems for all deposits intended to boost cash flows and enhance higher stock performance in China. The American economy on the other hand has enacted policies that promotes top financial performance of establishments since there is willingness to attain economic growth. In accordance with Miles (2010) cash is basically a fundamental resource for the procurement of assets and firm operations which is a top agenda for market return to cater to the stakeholders' welfare.

Foerster, Tsagarelis, and Wang (2017) declare that information regarding cash flows provide deductively superior information regarding stock prices proportionate to profits. Equally, Bernstein (2013) states that cash flows, instead of profits are a more explicit estimate of value added to investors and as such are more pertinent to investor analysis. Comparably, significant discrepancy of return is caused by cash flows as

reported by Lakonishok *et al.*, (2014) and Vishny (2014). Nonetheless, they realize that negative cash flows do not earn correspondingly negative returns.

Several studies have investigated the role played by organizations cash flows in its stock returns. Sloan (2016) reports that stock markets do not react to the proportion of cash flow that constitute profits. Comparatively, Vuolteenaho (2012) reports that the statistical significance of cash flow disclosure affects firm specific stock returns. In the same manner, Celiker *et al.*, (2016) realize that cash flow information has a positive relationship with price momentum. Likewise, Hou, Karolyi, and Kho (2011) discover that cash flow to price elaborates a considerable amount of the return differences in a global environment. In contrast with findings by Hou *et al.*, Eisdorfer (2007) discovers proof that cash flow information is the most essential motivator of stock returns in financially strained companies.

Cash flow management information is made up of the elements in a cash flow statement. Academics such as Kew *et al.*, (2006), Miles (2010) and Powers and Needles (2011) documented that there are three major components of cash flow information namely, cash flow information from operating activities, cash flow from financing activities and cash flow from investing activities. Likewise, Farshadfar and Monem (2013) agrees with the three components reported by previous scholars.

2.4.1 Operating Cash Flows

In accordance with Gordon *et al.*, (2017) operating cash flow is the amount of money remitted for the procurement of merchandise, tax settlements, vendor expenses, wages and other operation spending. Operation information offer the administration with a clear picture of how much cash an institution needs to avail or as created from its daily implementation of business information. Cash inflows consist of cash obtained

from the day-to-day business operational activities, cash collection from sales or provision of services, interest or dividends earned from investment instruments/ventures as well as alternate cash receipts not related to the day-to-day business activities (Kew *et al.*, 2006). Operating information also consists of cash outflow which entails cash payments for item procurement for trading or items bought for processing purposes, amount paid to suppliers of goods and payments to staff members through salaries and incentives, cash requital for tax obligations and interests (Kew *et al.*, 2011).

The two paramount financial statements that outlines the amount of cash inflow and outflow relating to a firm are the statements of income and financial position as at a given period. Cash inflows from operating information comprise of proceeds from sales and amounts paid by debtors. Conversely, cash remittances for inventories, operating costs, taxes along with interests are regarded as the cash outflows. Besides, this part is considered particularly essential for organizations since it provides a clear picture of how successful it has been in the oversight of operating and change in current assets and current liabilities (Libby *et al.*, 2014; Berry, 2011; McLaney and Atrill, 2014). Jabbari, Sadeghi and Askari (2013) in their review of the Tehran Stock Exchange between 2006 and 2010, documented an inverse correlated between operating cash flow with stock price crash risk. There are two techniques to be adapted in the establishment of operating cash flows namely, the indirect and the direct approaches. The indirect approach arrives at cash generated from operations by adding back the non-cash items.

Nevertheless, Berry (2011) provides that the second approach, known as the direct method, considers comprehensive cash flows through evaluating accounts linked with

operating information. There are three critical elements of this approach. The first element is the provision for cash inflow and outflow relating to operating activities in the cash flow statements and it solely ideal for operating information. Consequently, there is no need to select this approach when establishing financing and investing information. Thirdly, it is proposed or advanced by the Financial Accounting Standards Board owing to its capacity to provide change in working capital management therefore, ability to gauge the performance of the firm (Boyd *et al.*, 2014). McLaney and Atrill (2014) attributes this to lack of accrual-based adjustments in the direct method.

2.4.2 Investing Cash Flows

Investing cash flow exemplifies how much of the business funds generated and utilized on investments in other sectors for instance, bonds and securities form alternate firms relative to viable investment choice including the procurement of shares. According to Keown, Matrin and Titman (2011) property obtainment and the retailing of long-life assets involve the element of money from investing ventures. Berry (2011) notes that money obtained is linked with the retail of assets with long life features for instance equipment and buildings while cash outflows take place when a company purchases durable assets.

Power and Needles (2011) notes that this group may possibly consist of the procurement and sale of production assets, like manufacturing machinery while ploughing in cash inflow entails gathering recouping of loans advanced to other entities, interest earned from treasury bonds/bills and cash obtained from vending manufacturing assets. In certain cases, assets that have sustained their economic life may be disposed by the organization. It is nonetheless critical to note that assets

disposal may also take place when the organization intends on obtaining funds for operations or credit reimbursement (Jeter, 2005).

The procurement and sale of durable assets like building form investing cash flows (Titman *et al.*, 2011). Conversely, cash outflows take place through durable asset procurement (Berry, 2011). Typically, there could be investing cash outflow or inflows. Conversely, cash inflows may at times be consistent with cash outflows. Based on Orhan and Basar, (2015) growth and potential for survival is contingent on future investments. Owing to this, cash is frequently injected into assets considered productive. Among these are plant, property, and equipment necessary for development.

In addition, Boyd and Cortese-Danile (2000) posit that firms may require intangibles and durable securities. Accordingly, essential information could be acquired in line with management strategy and perpetual financial planning. The cash inflows from the sale of long-term assets take place for several reasons. Firstly, the amount of cash created from running activities may be insufficient. Secondly, a fitting chance may present itself for effective asset disposal. On the other hand, assets may have sustained their economic life, which also calls for their disposal. Jeter (2005) reasons that sale of assets may emerge due to a dearth of access to funds. Hence, this may be acknowledged as a critical concern for organizations.

Investing activities relates to cash inflow and outflow intended to yield proceeds and future cash flows. Kroes and Manikas (2014) reported that a significant correlation exists between investment cash flow and stock returns. More investment cash flow will elevate the organization's stock returns. Further, Enomoto (2015) also outlines

the impact of earnings management on stock returns. Other scholars such as Solechan (2007) found no relationship between investing cash flow and stock return.

2.4.3 Financing Cash Flows

Financing, according to Taillard, (2012) refers to acquisition of capital to fund a start-up, for expansion of existing business, to inject more capital to diversify stock or to finance any other activity that the firm has earmarked. The resources for internal financing comprise retained earnings. External financing nonetheless entails two major resources: equity and debt. Retail of shares by the organization generates cash while loans and retailing bonds form debt financing approaches. This can also imply acquiring resources from investors and in turn issuing them with dividends for their capital alongside accepting loans from creditors and reimbursing the loans depending on the terms of agreement (Powers & Needles, 2011). Financing cash flow are external funds facilitated by financial market (Subramanyam & Wild, 2014).

According to Kousenidis, (2006) and Omag, (2016) cash flows that are not investing or operating in nature form financing cash flow. Specifically, it is composed of shareholders cash investments, cash used to service debt, cash dividends paid to shareholders and the supply of shares or long-term securities (Lan, 2012). Shareholders cash investments refer to stock repurchases due to their sale by some stockholders (Liu & Wang, 2015). Sale of shares may arise due to the following reasons namely, decrease in share price which encourages share purchase, purchase of shares as a strategy to protect a firm from possible hostile takeover and shares could be given to firm executives as compensation (Schwert, 2000).

Kemboi (2010) contends that financing cash flow consists of revenue from issued shares and loan borrowings. Cash remittances for financing information comprises

money expended to refund the initial funds borrowed and proportion of dividends remitted for preferential shares. According to Wanja (2011) the predominant purpose of accounting information is to deliver necessary and adequate financial information that is instrumental to external and internal users to arrive at logical decisions pertaining to the firm activities and performance. Ordinarily net financing cash flow ought to be negative in majority of effectively run enterprises since it is a sign that the firm has been investing well on the business growth and development.

These cash flows relate to cash reimbursement of loans, cash dividends obtained by stakeholders and the provision of stocks or bonds. According to Kramer and Johnson, (2009), Williams, Haka, Bettner & Carcello (2014), it simply means cash invested by shareholders, cash repayments of borrowed funds, cash dividends received by shareholders and interest payable to bond holders. Mc Laney & Atrill, (2014) advance that cash investments of organization owners entail share repurchases that take place because of certain shareholders vending their stakes. There are number of reasons for this to take place. Firstly, a possible reduction in share prices which reveals an ideal chance for share procurement. Number two is that these shares could be a strategy by the organization to safeguard itself from hostile takeovers. Finally, they could be given to major directors for extra indemnity (Kramer and Johnson, 2009).

Cash repayments of loans occur due to the loans availed to organizations. With regards to this, cash is pivotal in fulfilling the demands of creditors. Consequently, they have negative impacts on financing information. In contrast, cash dividends are one of the means of putting money into productive use within firms. Hence, they bear similar influences on cash flows from financing information as cash repayments.

Financing information may avail cash inflows or outflows that are influenced by financial firm's approaches. For example, during expansion, cash inflows are typically examined because there could be inadequate cash flows from operating information that calls for the retail of shares or debt securities to keep operations afloat. Conversely, operations require comparably a reduced proportion of funding in the firm's mature stages (Mc Laney and Atrill, 2014; Tan, Robinson and Schilit, 2014).

Boyd *et al.*, (2014) opines that in financial markets, supply of stocks or bonds are the key sources of finance. According to Kargin and Aktas, 2011; Tian, Han and Zhang, 2015) firm life cycles determine the kind of finance required by the firm. In addition to this, (Orhan and Basar, 2015) contend that there are cash outflows linked with financial information of organizations quoted on the Istanbul Stock Exchange 100 Index. Vause (2014) believes that this same reason is why organizations' financial skeleton or the transfer of cash between the company and its stockholders as well as creditors could be explicitly perceived through a thorough evaluation of the cash flow statement.

Most organizations in Turkey make use of their retained earnings along with transient bank credits for funding due to the inadequacy of perpetual resources within capital markets. These resources, according to Gursoy (2012) are many a time employed by the government via government bond issuance arising from budget discrepancies. As such, organizations with access to durable resources could be said to have financial strength. The proportion of such resources might be seen in financial statements. Accordingly, cash flow statements assist experts to gain a better insight on the use of

long-term and short-term financial resources on cash basis (Libby, Libby and Short, 2014).

2.5 Theoretical Framework

Several theories have been propagated in literature that explains stock return. This study used efficient market hypothesis, signaling, agency and free cash flow theories following empirical studies done by Gul (2001), Chung *et al.*, (2005), Bukit *et al.*, (2009) and Sayari *et al.*, (2013).

2.5.1 Efficient Market Hypothesis

Efficient market hypothesis (EMH) stipulates that in an efficient market price wholly epitomizes all the available information. This implies that an investor can gain a risk adjusted return from investment as prices escalate rapidly and abruptly to any new information. Efficiency is elaborated in three unique levels, depending on the information degree epitomized in the stock prices. Three levels of EMH exist: weak, semi-strong and strong forms. Weak forms of EMH imply that financial asset prices point to all information comprised in the past prices whereas semi strong EMH forms suggests that prices epitomize all information that is accessible to the public. Nonetheless, Fama, (1991) contends that strong form of EMH shows that prices of financial assets epitomize information related to past prices, publicly available information as well internal information about an organization. Most stock markets in developing economies, not to mention Kenya, are categorized under semi-strong of EMH. According to Tease (1993), despite EMH stating that security prices ought to fully represent all accessible, relevant information, then variations of actual returns from expected returns need to be variable they should, on average be zero and unrelated to information accessible within the market.

Stock market plays an intermediary role and transfers funds from savers to organizations that use it to implement projects. Hameed & Hammad, (2006) posit that efficient markets are imperative, if the intention is that funds be distributed to the most exorbitant projects. This can be implemented only when stock prices are successfully priced; it influences the price at which market players are willing to trade claims on organizations' future cash flows. Additionally, if the general notion existing in the market is that prices provide a precise reflection of information, expenses on participants will be reduced and the stock market will effectively undertake its roles of transferring resources to efficient projects. From a policy outlook, proof of capital market efficiency signifies the government's restricted role in capital markets.

Efficient market hypothesis theory was found to be relevant in this study because NSE is a semi-strong form of EMH, and stock return will adjust promptly in the stock market to reflect all publicly available information regarding the firm, and this informs the investors on the direction future firm cash flow will take.

2.5.2 Signaling Theory

Signaling theory was advanced by Stephen Ross in 1977. It is premised on the assumption that accounting numbers ought to be verified as an ideal instrument for signaling market trends, seeing as they make it possible for investors to better recognize the organization's real value. Signaling theory in line with (Ross, 1977) entails how organizations should communicate with report users using knowledge on the manager's steps in achieving the owner's requisites. Signals can be represented by stock returns, or other information which provides that the organization is superior to other firms. Similarly, Wolk *et al.*, (2001) postulate that signal theory portrays the presence of information asymmetry between the parties concerned with the

information and the company management that gives the latter competitive advantage regarding the confidential information about the company's perspectives, status, and capacity to generate present and future cash flows from operating, investing and financing information.

The signaling theory provides a clear picture on how firms guide financial statements users. This signal is in the form of knowledge of what the management has accomplished in the realization of the users want. These kinds of signals may come in the form of a promotion or other information explaining the reason as to why this organization is superior to the others. Managers avail information via financial statements, that they use a conventional accounting policy that leads to increased stock return. Signaling theory is instrumental in explaining behaviour where two parties (institutions or individuals) access varying information. Ordinarily, according to Connelly (2011) one party, say, the sender, ought to decide on whether and means of conveying (or signal) that information, while the other party known as the receiver, is expected to settle on the ways of interpreting the signal. Signaling theory postulates that the executives in an organization with better knowledge on the institution are motivated to convey this information to potential investors where the organization can improve firm value via its communication in sending a signal through its yearly report. The information presented by the manager regarding the right condition of the company via financial statements is a sign that the firm has effectively conducted its operations. Scott, (2009) affirmed that a good signal will be well received by alternate parties.

In this context therefore, managers may use discretionary accruals to manipulate accounting information, within the acceptable provision of law to reflect sound

financial performance which leads to high stock returns. Beaver (1989) documented that the most important aspect to investors and stakeholders in the financial statements is the link between accounting results and stock return. Manipulated accounting figures allow investors to appreciate the firms' value reflected by high stock returns and are therefore an instrument to signal market trends and enhance investor confidence (Sayari *et al.*, 2013).

Several studies have been done on how stock prices react after publication of accounting information. For instance, studies by Kim *et al.*, (1991), Dontoh *et al.*, (1993) and Bamber *et al.*, (1995) reported that information irregularity between the stock market players led to fluctuation of stock price during announcement of accounting results. Conversely, Watts *et al.*, (1986), found out that the struggle by firms to outwit themselves and the reward for good performance force managers to adjust accounting information favourably, resulting to either under-estimated or over-estimated of the firm value in the market. According to information asymmetry one party, that is the managers have information that the investors are not aware of and may manage accounting results to diffuse market private information.

Zhen *et al.*, (2005) and watt *et al.*, (1986) indicated that Signal theory based on DA is a financial communication tool used to enrich information value of published results and enhance investor confidence. Consequently, other studies reveal DA practices as rational behavior. For instance, studies by Hunt *et al.*, (1995), Louis (2003) and Zhou (2003) found evidence that discretionary management is positively related to stock market value volatility. Similarly, Subramanyam (1996) and Beyer (2009) recorded that the influence of profits to investors outweighs information relating to non-discretionary and stock returns.

Consequently, the Signaling theory is relevant to this study because management signals the financial users through financial information what they have done to realize higher stock return. Equally, it suggests presence of information asymmetry between investors and managers that give managers competitive advantage on confidential information regarding the firm's ability to generate present and future cash flows from operating, financing, and investing information. This theory further supports DA practices and market reaction on stock return following publication of accounting information.

2.5.3 Agency Theory

Agency theory, based on Jensen & Meckling, (1976) was started and formulated by Jensen. Agency theory posits that agency conflicts emerge from the probable divergence of interest between shareholders (principals) and administrators (agents) of organizations. Based on Elliot and Elliot, (2002), the main role played by managers is to oversee the company in a manner that ensures high stock return (stock returns) to stakeholders therefore raising the profit numbers and cash flows.

The inherent conflict between shareholders and managers come about due to the separation of proprietorship, control as well as agency expenses. These deny the shareholders of the capacity to follow up on manager's activities. Johnson and Meckling, (1976), sufficiently provides this in the literature. In line with this assertion Jensen, (1986) developed the hypothesis of agency expenses of free cash flow, stating that monitoring challenges on the part of shareholders in overseeing opportunistic behaviors of managers allows for them to expend cash flow, which was created internally, for their own advantage, rather than spending it on strengthening the organizations value. Based on this hypothesis, the current literature, it can be deduced

that serious agency issues are brought about with more free cash (Harford, 1999; Opler *et al.*, 1999; Faulkender & Wang, 2006).

Separation of firm ownership and firm stewardship (management) led to incorporation of companies with defined clearly delineated functions and the interrelationship between all parties involved (Bosnia, 2012). A group of individuals with diverse interests, which include shareholders, management, employees among others come together to form a company, resulting to conflict of interests amongst these parties. The opportunist interest of managers entails selective disclosure of information particularly profits, purposely for management rewards which are often linked to good performance reflected by the positive returns to shareholders wealth and are good signals to prospective investors/ other interested parties regarding reliability of information about the company, whether it is positive or negative information (Noor, 2015).

Divergence of interest between managers and shareholders leads to agency costs. The most prevalent agency cost is in a situation where the self-interest of managers conflict with shareholder's interest. For example, in instances where management decisions do not maximize shareholders stock return, DA practices may be utilized by managers to hide their sub-optimal investment decisions from reported earnings.

Agency theory supports the reasoning that, managers role is to generate high stock returns to maximize shareholders wealth by managing the firm in a prudent, efficient and effective manner. Equally DA is supported by this theory.

2.5.4 Free Cash Flow Theory

Free Cash Flow (FCF) theory was first introduced by Michael Jensen in 1986. According to this theory, business free cash flows refer to the surplus cash flows that arise after netting off the necessary funds invested in projects that yield positive net present value (NPV) returns. These projects are long-term investment projects whose expected present value cash inflows are more than their cash outflows (Jensen, 1986).

According to Maham *et al.*, (2008) FCF is linked with changes in shareholders wealth which is associated with stock return and is therefore an efficient measure for evaluating the performance of the firm. FCFs signifies financing cash flow (the ability of a firm to repay the debts, sale and repurchase of its stock), operating cash flow (ability to meet operational obligations) and investing cash flow (facilitation of accelerated enterprise's growth through prudent utilization of fixed assets), thus enhancing investors' confidence in the firm. These are some of the reasons that make many investors to interpret increased FCF to mean increased firm value reflected by high stock return (Jensen, 1986). Conversely, shareholders of the firm, believe that free cash flows can be considered as criteria to create value for them; because it is expected that businesses with high positive FCF invest the surplus funds in profitable new investment projects that yields positive NPV that ultimately enhance stock return (stock returns).

Free cash flow is cash flow exceeding that which is necessary to finance all the organization's activities that have positive net values when deducted at the corresponding cost of capital. If the company intends on being successful and optimize value for its shareholders, this kind of FCF should be remitted to stakeholders (Mehrani & Bagheri, 2009). Cash payments to shareholders minimize the

resources availed to the manager and as such reducing their control and possibly exposing them to monitoring by the capital markets that arises when a company needs new capital. Funding projects internally saves the organization such monitoring along with the probability that funds will be inaccessible or availed solely at exorbitant rates (Jensen, 1987) Positive FCF signifies that the organization is creating more cash than required for operations and business development.

A negative FCF number shows that the organization is unable to come up with enough funds to sustain the business. FCF is equivalent to earnings for an organization without the more arbitrary adjustments done in the income statement. Consequently, FCF is consequential in determining firm performance in equivalent ways to examining the net income line (Jaggi & Gul, 2000). From an economic view and assuming rational behavior of individuals, it is presumed that at first all people want to maximize their interests. Managers are no exception to this statement. In view of the divergent interests that exist between the shareholders and the stewards of the firm chances are high for one party to modify the profits to increase their visibility. Profit manipulation is a typical method among enterprises that stems from agency problems especially when FCF are high and investment opportunities are low. Manager's information may be geared towards their opportunistic gain leading to agency costs, which adversely affects the firm. Managers may use accounting policies to increase reported profits and to hide the negative effects of the projects. The managers of these firms act opportunistically for personal gains by investing in suboptimal projects (Chung *et al.*, 2005).

Findings of research conducted in other countries (Bukitnm *et al.*, (2009); Chung *et al.*, (2005) & Cardoso *et al.*, (2014) show that managers use discretionary accruals to

maximize shareholders wealth through increased profitability leading to enhanced stock returns. Managers use DA to obtain the appropriate status among competitors and to increase stocks value in the capital market which makes investors and creditors to have more favourable terms about the firm.

This theory was found to be relevant to this study because it supports the explanations that cash flow information is linked to stock return (Maham *et al.*, 2008). Also, this theory supports management use of accounting policies (DA) to increase reported profits and to hide suboptimal investment projects (Chung *et al.*, 2005). This theory therefore provides a clear link between cash flow information and stock return and highlights the investors' confidence that the two constructs are associated. Further, this theory shows that DA can influence the association between cash flow information and the stock return.

2.6 Empirical Review

This section provided empirical reviews on effect of operating cash flow on stock return, effect of investing cash flow on stock return, effect of financing cash flows on stock return, effect of DA on stock return and moderating effect of discretionary accruals on relationship between cash flow information on stock return.

2.6.1 Operating Cash Flow and Stock return

Operating cash flows contain better information than stock return to investors (Ball *et al.*, 2016). Operating cash flow assists in assessing the capacity of the firm to make enough cash that can be utilized to service existing obligations and sustain the regular business operations of the firm. Several studies have linked cash flow generated from operations and stock return. For example, Ghodrati and Abyak (2014) examined the

effect of operating cash flow and earnings including shareholder returns. The review employed data from 54 companies listed in the Tehran Stock Exchange. The findings demonstrated that some significant linkage exist between the operating cash flow profitability and stock return. However, the economic success of stock return only happens when profits and cash flow increase.

A study by Jaeni (2014) examined the effect of accounting earnings, operating cash flow and stock returns of 54 manufacturing companies listed in Indonesia Stock Exchange (IDX). Purposive sampling technique was used to obtain a representative sample in using a set criterion. Accounting earnings and operating cash flow were the independent variables while the stock return was the dependent variable. The results documented that accounting earnings and Operating Cash Flow positively and significantly affect stock returns, meaning high accounting earnings and operating cash flow, greatly influence the benefit shareholders will reap from their shares (stock returns).

Aghaei *et al.*, (2014) investigated whether disaggregation of operating cash flow predict stock return. The results showed that, normal cash has the capacity as opposed to unusual cash flows to foretell cash flows and stock return, besides the ability of ordinary accrual agents surpasses the illogical components in foretelling future cash flows and stock return.

Jintaviwatwong and Suntraruk (2012) examined the effect of current earnings and current operating cash flows on future operating cash flows and future stock prices of non-financial firms listed on Thailand stock exchange for the period 2001-2008 using published secondary data. The study adopted descriptive research and the results from the regression analysis demonstrated that current future earnings and current operating

cash flows are positively related to future operating cash flows and stock prices. A further analysis was done to determine the predictive capacity of current earnings and current operating cash flows using 2009- 2010 out-of-sample data, and the finding demonstrated that current earnings and current operating cash flows have the capacity to foretell future operating cash flows more effectively as opposed to future stock prices.

Equally, Yocelyn and Christiawan (2012) carried research on the effect of operating cash flow on share price and the results revealed a positive and significant influence of operating cash flow to share price. A similar study was conducted by Ginting (2011) which showed that the operating cash flow also has a significant influence and positive impact on stock returns. Results of a study carried by Hariono and Sugeng (2012) affirmed that the operating cash flow is significantly and positively correlated to the company's value.

Martani, Khairurizka, and Khairurizka (2009) studied the effect of operating cash flow on stock returns and found that the higher the company's operating cash flow, the higher the investor's confidence in the value of the company, translating to higher stock returns hence concluded that operating cash flow is significantly related to stock returns.

Santoso (2018) examined the effect of operating cash flow to stock return through stock price using secondary data obtained from the financial statements of companies listed on the Indonesia Stock Exchange, Capital Market Directory (ICMD), the IDX website www.idx.co as well as from various other sources to support this research for the period 2012-2015. This research used listed manufacturing companies and

purposive sampling technique was adopted. The results concluded that operating cash flow directly and indirectly has no effect on stock returns through stock prices.

Foerster, Tsagarelis, and Wang (2017) evaluated the effect of the operating cash flow of Fortune 500 firms and found that each cash flow item has a predictive value for future cash flows, but this cash flow information is not yet fully reflected in stock prices. They mentioned that operating cash flows contain better information than accrual accounting to investors. Dastgir and Sharifi Mobarakeh (2011) investigated the association of cash flow and stock return. The results found out no significant relationship amongst cash flow and stock return and concluded free cash flow affects stock return more than operating cash flow.

Abu Al-Rab (2019) research study reported that the operating cash flows and stock returns are directly correlated, and that there is unique information that positively influences the earning per share. This review suggested that investors and users ought to be encourages to concentrate on data relevant to cash flows, in particular operational cash flows for credit facilities from the banking industry since its effect on ascertaining earnings per share and it is regarded as one of the determinants of financial performance. An alternative review by Jamal and Dabbash (2015), illustrated the significance of following up on the cash flow statement and asserted that there exists a positive statistical significance between cash flow from operations and decisions to allocate proceeds in commercial banks within Algeria and that the cash flow information is instrumental to investors when it comes to understand and assess the level of the organizations capacity to create positive cash flows to gain the return that aligns with the investors ambition and need.

Similarly, Alwan (2015) asserted in his review, that the cash flow metrics are an essential analysis technique via the cash at hand to measure liquidity and forecast profitability. He continued to report that the rate of return on investment is a positive estimate of profitability through the cash flow information variables such as investment, financing and operational information. An alternate review by Al-Amoudi (2011) discovered a direct correlation between the percentage variation in the market value of the stock and cash flows and therefore citing proof of the expedient management of cash flows by the company consequently raising profits and stock return.

A review by Dergham (2008) was centered on the importance of critically monitoring cash flow information and to create awareness among financial data users on the significance of comprehending and assessing them as it provides stakeholders with steady information. This study further documented that there is a positive statistically significant direct relationship between the earnings per share and operating cash flows.

Luo (2008) hand-collected individual cash flows from unique operations and assessed their features for foretelling future cash flows. The findings revealed that the abnormal individual cash flow items have a critical incremental predictive capacity pertaining to future cash flows. Additionally, tests on returns demonstrate that stock prices do not provide a complete picture of their predictive value, implying that current report protocols have the probability of misguiding investor dispositions of a company's capacity to create cash and investors could gain from a more explicit presentation of cash flows from operations.

2.6.2 Financing Cash Flow and Stock Return

Financing cash flows is the other section of the statement of cash flows. Financing information is attributed to acquisition of capital to finance start-ups, expansion or financing of any other activity that the business organization needs extra funds for. Financing could take the form of internal or external source of financing. Retained earnings form the basis of internal financing while equity and debt financing form the basis of external financing. Cash may be obtained by selling company shares to investors. Sale of bonds on the other hand constitutes debt financing by the firm. Thus, such funds are raised through financial markets (Omag, 2016). Financing cash flows may be defined as cash flows information that are neither operating nor investing. To be specific, they include, loan repayments, investment by firm owners, dividends received by firm owners and supply of bonds or stocks.

Cash investments by firm owners' entail repurchase of shares due to sale by some shareholders. Share repurchase may occur due to the following reasons; firstly, scramble for shares by investors due to decrease in price and secondly, as part of the wider strategy by the company to protect itself from possible hostile takeover. Thirdly, they could be used as additional compensation to a firm's key executives (Sayari & Simga-Mugan, 2013). Loan repayment involves servicing of debt to satisfy creditor interests hence influencing financing information adversely. It is worth noting that payment of cash dividends is a financing activity.

In as far as financing of firms are concerned, cash flow patterns are dictated by business cycles. According to Omag (2016), the study found out that there are cash outflows associated with financing information. Consequently, exchange of cash between a firm and its shareholders or creditors for that matter, could be observed by

probing this portion of the cash flow statement. Studies in recent years have shown that, most firms use short-term loans and retained earnings to finance their information because long-term resources are not sufficient in the capital markets. Governments take this advantage to issue government bonds to address the issue of budget deficits in their budgets. Thus, firms which are accessible to long-term resources could be regarded as financially stable. The exact amount of these resources may be observed in the financial statements of the relevant firms (Caprio & Demirgü-Kunt, 1998).

According to Tariverdi and Teimoory (2013), cash flows from financing information are made up of three major transactions: share transactions, debt transactions and dividend transactions. Although cash is received when a firm issues stock, ownership is diluted. Raising capital through issue of additional stock is not a bad thing per se so long as the firm is not expanding at unacceptable rate. It is also important to note that when additional shares are sold in a firm, less income is attributable to stockholders.

Firms experiencing significant growth may opt not to pay dividends to their shareholders but invest the extra income that would otherwise be distributed and paid as dividend in projects aimed at expanding their business. The figure for the net cash from financing information may be used to gauge its effect on a firm's overall cash flow position. However, a study of how a firm raising cash or repaying cash for the individual line items is more important (Budagaga, 2017).

A study by Andani and Al-hassan (2007) documents the process of obtaining capital to finance start up or expansion activities or whatever else the company needs the extra funds for as financing. Financing could take the form of either internal or external and retained earnings are the major source of internal financing while debt

and Equity are the major sources of external financing. Cash is obtained from sale of firm shares to investors, and sale of long-term securities and loans constitute debt financing. Thus, security markets are good avenues to be used to raise external funds from the public (Dagar, 2014).

Financing information may result in cash outflows or inflows which are affected by firm's financial strategies. For example, during firm expansion, lack of adequate cash inflows may compel a firm to sale securities or bonds for the maintenance of firm operations. However, during maturity stage, firm operations require comparatively lower amount of financing. Supply of securities in financial markets is an essential source of cash for firms (Gambacorta, Yang & Tsatsaronis, 2014). Cash flow patterns may be described by considering business cycles (Nyamache, Nyambura & Mishra, 2013).

Hamza (2014) carried out an investigation on the relationship between the statement of cash flow information and stock returns of insurance companies listed on the Damascus Securities Exchange Market. The results of this study revealed there were statistically significant, inverse relations between stock returns and cash flows from financing information for some companies, and the associations for others were non-significant.

Studies by Durgham & Durghams (2010) found that there is no relationship between shares' stock return, financing cash flow and joint information in all banks other than for the Arab Islamic Bank. The study documented a positive and negative relationship between financing and investing cash flows and shares' returns respectively.

Alfonso *et al.*, (2018) examined the determinants of cash flow restatement (CFRs), investors varying opinions regarding CFRs and the information content of CFRs through concentrating on abnormal trading volume and price response to CFRs. The findings discovered CFRs to be educative with stakeholder differences, as demonstrated by rising abnormal trading volume and a steady volume response to alterations in operating cash flows following the SEC allowance duration. Chu (1997) finds that financing cash flows positively influence stock returns in Taiwans capital market.

Livnat and Zarowin (1990) examined the effect of the cash flow component: operating cash flows, investing cash flows and financing cash flows and the findings indicated disaggregation of cash flows makes financing cash flow a positive effect on stock returns. Another study by Legiman (2015) suggests that debt issuance is a good signal to estimate cash flow because the owner can maintain the proportion of his ownership rather than issuing shares so that the market will react positively to the announcement of debt issuance. This was confirmed by Van Horne and Wachowicz (2009) research findings which showed that the market will react positively to the announcement of debt issuance which will improve company's financing sources for investment and business expansion.

Habib (2011) investigated current cash flow, stable profitability and growth opportunities on the stock returns using 7,229 firms quoted on the Australian stock exchange from 1992 to 2005. The findings indicated that companies that have free cash flow and growth opportunities have high stock prices and operating cash flow positively affects stock return where profits are temporary.

Mongo (2010) investigated the effect of cash flow on profitability of commercial banks in Kenya for the period from 2005- 2009 using secondary data. The banks' profits were the dependent variable and was measured using profit after tax while operating cash flow, investing cash flow and financing cash flow were the independent variables. Data was analysed using multiple regression and the results recorded a positive association of financing and investing cash flow on profits while operating cash flow had a negative effect.

Other studies by Fenandar and Raharja (2013) on the impact of financing decisions on firm value with the results of financing decisions reported positive effect on the value of the firm. Equally, Kroes and Manikas (2014) and Widya Trisnawaty *et al.*, (2013) studies found positive influence between investment cash flows and stock returns. Contrary findings were reported by Khanji *et al.*, (2015) results that revealed limited effect of financing cash flows on the share market value of Jordanian commercial Banks.

2.6.3 Investing Cash Flow and Stock return

Investing cash flow is a component in the cash flow statement that provides insight into the average change in an organization's cash position owing to any profits (or losses) from investments within the stock market including operating subsidiaries and variations from money venture into capital assets for instance plant and machinery. When evaluating an organization's cash flow statement, it is essential to take into account the different units which play a part in the general change in cash position. In most situations, an organization may have negative total cash flow for a particular quarter, but if the firm can achieve positive cash flow from business endeavours, the

negative total cash flow may be a consequence of large investments spending which may not be bad thing (Ambreen & Aftab, 2016).

Investing cash flow is an essential element of growth and stock return. Plant and equipment and changes to property is a large line item on the balance sheet that are included in this criterion. When experts want to determine the firm's spending on Property plant and equipment (PPE), they can explore the sources and uses of money in the investing part of the cash flow statement. Capital expenditure discovered in this part of the cash flow statement, is a common capital investment standard applied in evaluating stocks. Higher capital expenditures suggest that the firm is ploughing into prospective operations; nonetheless, it also suggests a decrease in in cash flow.

Companies with high capital expenditures are generally in a state of growth (Liang & Pathak, 2016). An example of negative investing cash flow includes the acquisition of permanent assets, investment in shares and other financial instruments such as treasury bonds and granting loans to other entities. Similarly, positive cash flow from investing activities includes the disposal of fixed assets/ investment instruments, and the proceeds from matured loans and insurance covers (Lewellen & Lewellen, 2016).

Cash flow related to investing reflects how organization cash is used to provide securities. Examples include making capital expenditures, acquiring property and equipment, and expanding. Cash flows from investing information measure a firm's investment. This is where investment in other companies and capital expenditures are recorded. Capital expenditure relates to purchase of fixed assets such as plant and machinery. The figure is usually negative when the firm buys more of its assets than it is selling and vice versa (Frank & James, 2014).

Other sources of investing cash flow include acquisitions and divestitures of subsidiaries, commodity hedges, currency hedges and investment in marketable securities. For financially sound firms, the figure for net investing cash flow should be negative. This means that cash from operations is being driven back into the business for expansion to generate more profits (Omag, 2016). Purchase and sale of fixed assets constitute investing cash flows. Sale and purchase of fixed assets such as buildings yield cash inflows and cash outflows, respectively. Generally, investing cash flows could take the form of cash outflow or cash inflow. However, sometimes, cash inflows may equal cash outflows (Lan, 2012).

A firm's future investments can be used to gauge its growth and stock return (increase in stock returns). Thus, cash is invested in productive assets such as property, plant and equipment. However, there is need to invest in intangible assets and long-term securities of other firms. Consequently, long-term financial planning becomes crucial towards this end (Omag, 2016). Fixed assets may be sold to top up cash from operating information or a better opportunity has arisen to dispose those assets. Alternatively, assets useful economic life may be over and urgent replacement is needed. Nonetheless, a firm may sell its assets to raise funds for expansion instead of going for debt or equity (Frank & James, 2014).

Khanji and Siam (2015) conducted research with investment cash flow as an independent variable and stock price as the dependent variable. The findings of this study revealed that investment cash flow has a limited effect on its stock price. Similarly, Mutia (2012) conducted a study with the same independent variables with different results. This study shows that the cash flow component of investment information has an influence on stock returns. Theoretically, the cash flow of

companies with high investment opportunities will lead to investor confidence in the company, as such greater stock return. Weber (2018) used balance sheet data to investigate the turnover of cash flow at the firm and found out that cash flow duration and stock return in the short run are negatively related. Ernayani and Robiyanto (2016) found a negative association between investing cash flow and stock return.

Khanji & Siam, (2015) documented an insignificant link between operating cash flow and market share price of Jordanian commercial banks. However, Kheirandish & Qeisari (2014) found a positive association between investing cash flow and stock returns.

Conversely, a study by Al-saedi (2014) indicated that there is no significant statistical relationship between the investing cash flows of Iraqi organizations and their market value, which implies that stakeholders fail to consider the operating cash flow statement when arriving at their investment decisions. Abu-Abbas (2014) demonstrated that we can evaluate the direct technique of the statement of cash flows; however, the speculated statement fails in providing precise finding. If the users of financial statements allow anything below total precision in these statements, then companies employ either implicit or explicit techniques to prepare statement of cash flow. According to Habib (2008) the explanatory power of earning is higher compared to cash flows and the difference is not statistically significant. Therefore, both earnings and cash flows have steady information content on stock returns (Habib, 2008).

Similarly, a study by Durgham & Durghams (2010) documented a negative relationship between cash flows from investing information and shares' returns in Islamic Banks. Investing cash flow relates to cash receipts and disbursed towards

activities meant to generate profits and cash flows in the future. Enhanced investment leading to increased cash flows in the future is a positive signal and attracts investor confidence. The results of research conducted by Widya Trisnawaty and Wahidahwati (2013) showed that there is presence of a significant relationship between the investing cash flow and stock return.

2.6.4 Discretionary accruals and Stock return

Discretionary accruals constitute accounting techniques employed to communicate financial performance information and firm stock return to impress investors. Francis *et al.*, (2005) posits that DA relates to intentional manipulation of accruals to manage accounting earnings. Management forecast future firm performance using Accruals irrespective of the period of the transactions. Accrual is also referred as matching concept and is an accounting policy that recognizes expenses when incurred and revenue when earned as opposed to cash policy that measures the performance and status of a firm regardless of when cash transaction occurred. Raham *et al.*, (2013) and Yapping (2016) theorized that DA occurs when management use their discretions to adjust the timing of financial transaction to influence the output of the accounting system to yield expected level of earning desired by the shareholders.

According to Owen *et al.*, (2017) accrual neglect the underlying economic circumstances that lead to an increase of stock return which vary across firms over time resulting to different levels of accruals. It is anticipated that the level of accruals differs from similar firms depending on the prevailing economic state which vary over time and affects managers' accrual choices and DA (Wu Zimmerman, 2017; Collins, Pungalya and Vijn,2017 & Franked and Sun,2017). Some studies have been done on the association between DA and future stock returns and have linked DA to firms

facing liquidity problems (bad state). A bad state is defined as a state in which a firm's change in cash flow from operations is negative, leading to increase in accruals occasioned by managers use of their discretion in adjustment of financial transactions recorded in financial statements to present higher earnings to investors (Salihah Ahmed, 2018).

According to Subramanyam, (2014) DA is positively associated with stock returns and future earnings. He found evidence that managers use accruals to increase the informativeness of earnings; therefore, in an efficient market managerial discretion can improve the ability of earnings to reflect favorable stock returns. A study by Fidelis Enya Ejabu, (2020) using ten listed manufacturing firms in Nigeria stock exchange covering the period 2012 to 2015 revealed there exist a significant relationship between DA and stock return and that the firms that used DA to influence their stock returns were firms whose stock returns were very high in the stock market. Similarly, Allissa *et al.*, (2013), Demirkhan *et al.*, (2012) and Comett *et al.*, (2009) findings supported that majority of firms used DA variables to increase their stock returns to conceal from investors their weaknesses and periods of falling profits.

Contrary results were found by Brousseau and Gu, (2011) who examined how accruals policy is priced by the stock market using data for the period 1980 to 2005 after controlling for firm size. The finding revealed that poor accruals quality corresponds with lower returns while firms with low accruals have high stock returns. Sayari *et al.*, (2013) on the same vein evaluated DA to a high and low level in Tunisian firms and the role of firm size. The results revealed that there exists a statistical connotation between DA and stock returns. Likewise, DA enhances stock returns of large firms and negatively affects stock returns of small firms. Contrary

results were found by Nuryaman (2013) who indicated that DA negatively affects stock return while audit quality can increase the opposite association between DA and stock return.

More recently, a study by Ahmed *et al.*, (2019) in Amman Stock Exchange examined the effect of earnings management on stock return and found no association between DA and stock return. Similar results were recorded previously by Sochelan (2017) and Abu Risha *et al.*, (2015).

Lawzi (2013) investigated the Impact of the discretionary accruals practice on stock prices on the industrial shareholding companies listed in Amman stock exchange. This study sought to establish how discretionary accruals, company size, audit office size and debt ratio affect stock prices using 77 firms listed in Amman stock exchange in 2008-2009. Descriptive analysis was employed, and discretionary accruals was measured using Jones Modified model. The results found positive association between earnings management, firm size, and stock returns. The size of the audit office and size of the debt also have positive link with stock price.

Sayari *et al.*, (2013) reviewed the discretionary accrual to a high as well as low degree, furthermore, he looked into the influence on returns and contrasted the four discretionary accruals models, as well as the role played by firm size. The most fundamental observation made by Sayari *et al.*, (2013) in this review is the existence of a statistical implication between stock returns and discretionary accruals based on the four models employed in this review. Additionally, discretionary accruals make it possible for the big Tunisian companies to record positive stock returns while small companies exhibit negative stock returns.

Nuryaman (2013) investigated the effect of earnings management on stock returns using quality of audit as a moderating variable using 149 manufacturing firms in Indonesia in 2010. The audit standards were assessed through the auditor's eminence. Whether or not he/she is from the big four audit companies, research hypotheses imply that discretionary accruals have a negative impact on stock returns, and the impact of discretionary accruals on stock returns is more substantial for firms audited by the big four audit companies as opposed to the others. Negatively influenced stock returns as well as the auditing standards can contribute to the inverse correlation between stock returns and discretionary accruals. On top of that, the inverse correlation between earning management with stock returns is more consequential for firms audited by the Big four auditing organizations in contrast to other audit firms.

Al Kharshqah (2014) conducted a review of industrial and service firms quoted in Amman stock exchange, with the purpose of establishing the degree of the practice of industrial and service sector firms cited in Amman stock exchange in managing earnings. The review yielded numerous findings, of which the most critical was that firms within both industries had exercised discretionary accruals. The outcomes of the evaluation revealed an inverse correlation between the management of earnings by industrial firms as well as their stock returns. Further it was established that there is no correlation between stock returns and discretionary accruals in service firms. The findings equally demonstrated a statistically significant correlation between the stock earnings by industrial organization and leverage ratio, net flows of operational activities, and company size including rate of assets return, whereas the debt coverage to the stock proportion of industrial companies was not significant.

Qiang, *et al.*, (2010) study sought to investigate whether discretionary accruals can predict stock market returns. Ordinary least square method was used to predict stock market returns. The study findings revealed that discretionary accruals predict market stock returns as firm size increases.

Efiong *et al.*, (2018) posits that stock market globally provides listed companies the opportunity to mobilize capital needed for long-term investment. Firms obtain this capital through issuing part of their shares to existing shareholders and could also decline from issuing new securities in the event where adverse information relating the firm is high in the market. Therefore, economic analysts and investors consider stock returns as a good indicator of the financial health of the firm (Janget *et al.*,2020). The indirect link between stock price and financial health motivates managers to inflate accounting earnings before shares are offered in the market.

According to research done by Park and Park (2014), insiders especially directors and managers, prior to selling their own stocks deliberately increase current period earnings through accruals and consciously delay certain transactions such as liabilities thus under-estimating them in a pessimistic period, making investor to presume high firm growth rate leading to overstatement of firm's market value. These conflicting issues revolve on the timing period of recognizing expenses and revenue where managers safeguard from influencing the reported earnings to ensure the firm attracts investors in the stock market (Qiang *et al.*, 2000). Discretion accruals, therefore, guides investors' forecasts relating to future firm stock market performance (Ming-feng, 2015; Daneshfer & Mohamed, 2009).

This is contrary to result documented by Alissa *et al.*, (2013), whose findings revealed that firms with low-income utilize discretion accruals practices to increase income.

There is a possibility that managers of firms adopt accounting policies meant to cover their managerial actions. Efiog *et al.*, (2018), postulates that this discretionary accrual practice influencing investor's behaviour in stock markets where investors are unable to differentiate actual returns and manipulated returns.

Studies by Balsam *et al.*, (2002) and Xie (2005) investigated US firms suspected to have corrupted their financial statements to meet the financial analysts' standards. The findings found that manipulated accounts and stock price movement. It can be inferred that the informed investors on existence of manipulation of accounts in firms perceive this practice as rather informative, since price variations and manipulation move in the same direction. Further, these investors assert that downward manipulation of earnings leads to stock prices movement, while upward manipulations had no significant effect. The study concluded that investors judgement on firm evaluation are not influenced by upward accounting manipulation.

Equally, Balsam *et al.*, (2012), Dumontier and Elleuch (2012) and Burgstahler *et al.*, (2014) studies concentrated on how investors react after announcement of financial results in the French market and the results recorded that investor react to result publication as if no manipulation occurred, because they lack the ability to detect manipulations at that moment.

Ascioglu *et al.*, (2011) investigated the association of earnings management and stock market liquidity. They additionally assessed lack of liquidity following Chung *et al.*, (2009) to evaluate market liquidity. The findings revealed a statistical association of earnings management and discretionary accruals in the absence of firm liquidity. Besides, their findings provided that the techniques deployed to compute abnormal discretionary expenses influence lack of liquidity. Chung *et al.*, (2009) assessed the

connection between earnings management and stock liquidity; he also achieved corresponding outcomes that DA relates to fictitious costs. They additionally demonstrated that earnings management is a firm accounting policy that drives suppliers and providers to increase variations between bids and ask price to sustain themselves.

In the same manner, Bachtiar (2008) investigated the effect of discretionary or informational asymmetry that is seen in trade costs of money markets. The results of the study showed that there exists a significantly positive connection between low earning quality and bid-ask price as a category of assessing measuring informational imbalance. This study draws on Jones modified model following Gupta *et al.*, (2009), Richardson (2000) and Franchs *et al.*, (2005) that supported the effect of DA on diverse liquidity measures.

2.6.5 Cash Flow Information, Discretionary accruals and Stock return

Francis *et al.*, (2005) demonstrated that organizations with poor quality accruals have higher interest cost ration and reduced debt ratios. The outcomes of their review reveal that voluntary and non-discretionary accruals are instrumental in specifying variations of profit, although the influence of non-discretionary accruals is more sizable as opposed to option accruals. According to Chambers (2005), stakeholders are making an attempt at projecting accruals and cash flows sustainability but are unable to deliberate on prices. For this reason, in some organizations, sustainability of accruals is more logical and for others less feasible. Francis *et al.*, (2008) investigated the manner of accruals valuation and demonstrated that in market valuation, accruals connected to receivables are more critical compared to other accruals.

Hirshleifer *et al.*, (2009) analysed accruals, cash flow of firm, historical profit and its elements with stock returns and reported stock returns are influenced positively by accruals while cash flow negatively affect accruals. Chen and Shane (2014) found that positive/negative cash flow have less/enhanced sustainability as opposed to ordinary fluctuation in cash flow. Equally Foerster *et al.*, (2015) examined the ability of cash flow elements on the standard return on profit-based profitability criteria.

The findings attest to the ability of cash flow to influence return on average profitability depending on profitability criteria. An analysis carried out by Artikis *et al.*, (2016) on the results of cash and accruals components of income sustainability, stock return prediction and future stock returns report that there is significant positive link with sustainable cash component from earnings from investment. In addition, investment strategies are also feasible with increased funding in cash items in organizations with massive cash distribution to shareholders. Saghafi and Kordestani (2004) looked into the link between operating cash flow, profit predictability, profit and profit components as well as sustainability of reported income. Their findings demonstrated that market respond to increase in firm cash flow in comparison with positive speculations.

Arab Mazar Yazdi *et al.*, (2007) analysed these data in forecasting future operational cash flows by dividing income into cash and accruals components and their findings show that profit components point toward varying information regarding operating cash flows. Aghaei *et al.*, (2010) analysed the ability of cash flows and accruals components to forecast cash flows. Based on the findings it was reviewed that, cash flow model and accruals components demonstrate a superior predictive power as opposed to profit model. Khodamipour and Poorehmad (2010) analysed the accruals

ability, cash flows as well as operating profit to predict operating cash flows, taking into consideration a particular interval. The outcomes found the existence of a significant correlation between operating profit and future operating cash flows.

HierSchleifer *et al.*, (2009) conducted an examination of the association between cash flows and discretionary accruals with stock return. The results revealed that, there is a strong positive correlation between the quantity of discretionary accruals and stock return. Further, there is a negative linkage between the cash flow quantity and stock return.

Michael *et al.*, (2010) conducted an analysis on the comparison of sound and non-corrupted financial statements with fraudulent financial statements. Based on their findings it was established that the organizations restating devoid of any duplicity issued their balance sheet in a lesser quantity as compared to the organizations that restated erred financial statements. They discovered that the organizations restating devoid of any form of fraud reported moderate figures in their balance sheets in contrast to those with erred and manipulated financial statements. Accordingly, a review done by Wilson (2008) on the trend of reduction in the post-restatement earnings information content revealed that the relative earning contains reduced information content following restatement. Additionally, the findings demonstrate that the organizations that replace their auditors as well as board members promptly following restatement incur a lesser reduction in terms of information content.

Maio (2012) examined the association between stock return, dividends, and earnings. This study focused on the implicit link between earnings from market return and increase in profit through restricted association with the current value. The findings

revealed that profit growth can be foretold based on return. Change in return can be used to speculate on profit growth.

In their research, Mehrani and Bagheri (2009) examined the effect of free cash flows and institutional shareholders on discretionary accruals of firms cited in Tehran Stock Exchange. This study analysed the performance of 90 organizations from the year 1999 to the year 2005 and concluded that there was an explicit significant correlation between discretionary accruals and increased free cash flows in the organizations that exhibited high growth. Nonetheless, no significant correlation was established between discretionary accruals and institutional shareholders in the firms reporting increased free cash flows and low growth.

Ebrahimi and Chadegani (2011) studied the link between different earnings and cash flow measures of performance and stock returns among Iranian firms. Simple and multiple regressions analysis were used to analyse data for a nine-year period from 2003 to 2011. The study showed that firm performance and cash flows are significantly negatively correlated. Equally, earning based measures are more correlated with stock returns and portray a firm's performance better than cash flow measures in some firms with higher accruals.

Sinan (2019) investigated 44 manufacturing firms listed in Amman stock Exchange to establish the effect of earnings management on the relationship between cash flow information and stock returns in Jordan in 2013-2018 using secondary data obtained from the published reports. Data was analysed using descriptive and multiple linear regression analysis and the study found that earnings management has no significant effect on the relationship between stock return and cash flow information. Equally, cash flow information and firms' stock returns had no association.

Utomo & Pamungkas(2019) analysed the effect of discretionary accruals as a moderating variable in the relationship between cash flow information towards stock returns of manufacturing firms in Indonesia. Purposive sampling technique was used to obtain 204 companies for the period 2012-2016. Multiple regression model was adopted to analyse data. The findings indicated that operating and financing cash flows positively affects stock returns while investment cash flow negatively affects stock returns while discretionary accruals moderate the relationship between operational and financial cash flow and stock returns. However, discretionary accruals have no moderating effect on the relationship between investment cash flow and stock return.

Another research conducted by Collins (2014) on the moderating effect of earnings management on the relationship between cash flow information and stock return found that financing cash flow significantly affect stock returns. The study further found that earnings management mediates the relationship between financing cash flow and stock return. This means that when financing cash flow increase investors associate it to increased funding leading to high profits and enhanced stock return. Maximizing shareholders returns is the main objective of the owners of the company while managers want rewards in form of bonus for their performance in the firm. Consequently, managers opportunistic behaviour drives managers to discretionary accrual to make financial statements look good to attract investors and improve stock return. Solechan (2007) research records that discretionary accruals positively affect the initial value of the company. The high corporate value at the beginning signifies the possibility of the investors to get a positive return.

2.7 Control Variable

Firm Size and Firm Age were controlled as they may significantly affect stock returns. These variables were controlled to have a clear assessment of the effect of independent variables together with the moderating variable on the dependent variable.

2.7.1 Firm Size

Firm size is measured using the logarithm of total assets at the end of the current year (Tariverdi *et al.*, 2014 & Laeven *et al.*, 2014). Francis *et al.*, (2015) assert that growth in firm size has been proven to have a positive effect on potential stock performance owing to scale effects. Nonetheless, in the same way, political cost hypothesis posits that, growth in firm may generate negative impacts because of the cost of certain regulations and taxes. Consistent with Mironov (2013), tax is negatively related to stock returns because taxes lower return. Fama & French, (1992) contends that firm size is related to firms' profitability, and big firms records higher earnings and are unlikely to be bankrupt. Conversely, Amihud (2012) and Horowitz, Loughran, and Savin (2010) find that size has no effect on returns.

Firm Size variable shows insignificant results in most of the results. Therefore, the association between firm size and future firm performance is expected to be possible in both directions. For instance, Sinclair (2016) empirical results revealed that book-to-market equity withdraws the explanatory influence of size variables since it is inconsequential to stock returns when book-to-market equity is added to the same regression. Similarly, Amuhid (2012) and Horowitz *et al.*, (2010) find that size has no impact on stock returns. They contend that stakeholders have established that small-size organizations have the potential of outshining larger organizations within the

stock market and are not underestimated as was in the past (Amihud, 2002; Horowitz *et al.*, 2000).

On the same breath, Niresh and Velnampy (2014) examined effects of firm size on stock performance of listed manufacturing companies in Sri Lanka for 15 firms in Colombo Stock Exchange from 2008 to 2012. The finding showed no significant correlation between the size of the firm and stock performance. On the other hand, the results of Dogan (2013) were contradictory based on an analysis of the effect of size, age, liquidity, and leverage on firm performance for 200 firms quoted in Istanbul Stock Exchange for the period between 2008 and 2011. The findings recorded positive effect of size and liquidity and a negative effect for age on profitability respectively. Firm size is crucial in assessing the affiliation of internal and external affiliation in the operating environment of a firm (Abiodun, 2013). A study by Hossain (2008) on disclosure and size posits that large firms due to the magnitude of information within their disposal budget more resources towards marketing hence the findings by the previous studies that confirmed positive link between size of the firm and information disclosure (Ibrahim, 2012).

Becker *et al.*, (2010) conducted research on the effect of firm size on firm performance in USA. The results of the study indicated negative and statistically significant relationship between total firm size and firm performance. Similarly, Coad *et al.*, (2010) and Akbas *et al.*, (2012) in their studies conducted in Spain and Istanbul respectively reported that firm size positively influences firm performance. Correspondingly, Kipesha (2013) analyzed the impact of size and age on firm performance in Tanzanian Microfinance Institutions. The findings showed that both

firm size and age affected the Microfinance performance in Tanzania regarding revenue, efficiency, profitability as well as sustainability.

2.7.2 Firm Age

Firm age is explained and assessed by the logarithm of the number years between incorporation and the year the research was conducted (Carter 1998; Daily 2005; Boudriga *et al.*, 2009; Tenai *et al.*, 2011; Cukur &Gumarah 2012 & Banerjee *et al.*, 2016). The firm life-cycle theory can breakdown the connection between investors' returns and the age of the firm. Stepanyan, (2012) cites that organizations approaching maturity report considerable experience and arrive at successful capital structure decisions through optimizing the merits of a debt interest tax shield resulting in increased stock returns. Accordingly, Custódio and Metzger (2014) relate the age of an organization with the firm life-cycle theory. Firm age is employed as a representative of firm life cycle, and their outcomes establish an explicit and positive correlation between firm age and stock return measures.

Extant literatures have divergent findings regarding the effect of firm age on stock returns. A study by Baker and Wurgler (2016) in USA controlled firm age to evaluate the effect of investor sentiment on stock returns. The findings showed a positive and negative association. Custódio and Metzger (2014) investigated whether firm age determines stock returns and concluded that firm age and stock return have a positive association in USA.

Numerous studies in established economies have tested the effect of firm age on stock return. Lin and Chang (2011) confined within M-M theory analyzed the effect of debt on firm value in Taiwan and firm age was controlled. The findings recorded significant effect of firm age towards stock return. Similar findings were reported by

Agiomirgianakis *et al.*, (2013) who cited reputational effect as a key factor in this finding citing older firms safeguard their reputation through objectives that maximize returns. It further emerged that older firms are more profitable than younger firms, attributed to accumulated learning experience. Similar findings were recorded by Papadogonas (2010).

Contrary findings were documented by Sinthupundaja and Chiadamrong (2015) and indicated negative and insignificant association between firm age and stock return of asset and return on equity. On the same strength, Dawar (2014), investigated the effect on debt choice on stock returns and registered negative relationship between firm age and return on equity. The study further found negative relationship between firm age and returns on asset in India and documented that firm age should be controlled to account for firm specific factors and reduce bias in the specification model.

Previous studies have also documented a positive link between firm age and profits due to firm experience and associated purchasing and negotiation power (Majumdar 2017). Likewise, other studies found no association between firm age and stock return (Stierwald, 2010).

2.8 Summary of Literature Review

From the review of literature relating to cash flow information and stock return tabulated in table 2.1 below, firstly; it is evident that research in cash flow information and stock return has been done but not comprehensively. The literature reviewed indicates that few previous researchers have extensively focused on the direct link between operating cash flow information on stock return. No known studies used a moderating variable to test its indirect effect on the relationship between the predictor

and the dependent variable in Kenya. Secondly, most of these studies were done in developed countries but very few studies have been carried out in emerging economies like Kenya and have yielded mixed results. This therefore creates a research gap for further studies by testing the effect of discretionary accruals as a moderating variable in the relationship between cash flow information and stock return in Kenya.

Thirdly, most of these studies used a short time interval which might not be ideal for generalization of results. The current study will use a longer time span of twelve years to study the moderating effect of discretionary accruals on the relationship between cash flow information and stock returns for non-financial firms listed in NSE.

Fourthly, majority of these studies used linear regression models but very few used panel data to analyze data. This study will adopt panel data and utilize Hausman test to compare fixed and random effect models to identify the suitable model to be used in panel regression.

Finally, most of the existing studies concentrated on firms listed in one or two specific sectors of the stock exchange. Thus, this study intends to address as well as fill these pertinent gaps in literature by testing the moderating effect of discretionary accruals on the relationship between cash flow information and stock return in non-financial firms listed in NSE.

Hence the moderating effect of discretionary accruals becomes the contribution of the current study, and the findings contributes to theory and literature since no known studies in Kenya have tested the indirect effect of discretionary accruals on the

relationship between cash flow information and stock return except for very few known studies in developed economies whose findings were divergent.

Table 2.1: Summary of Literature Review and Gaps

Author/Year	Title/Context	Findings	Gaps/Benefits to Current Study
Santoso (2018)	Financial Performance, Exchange Rate and Stock Return: Evidence from Manufacturing Sector in Indonesia	Operating cash flow directly and indirectly has no effect on stock returns through stock prices.	-This study was confined to manufacturing companies - A shorter time span of five years - Similar methodology -Recommendations and limitations
Khanji and Siam (2015)	Effect of cash flow on share price of Jordanian commercial Banks listed in Amman Stock Exchange in Jordan Amman Stock Exchange	Investment cash flow has a limited effect on its stock price while operational cash flow has limited effect on the share market value of Jordanian commercial Banks. However, there is a significant relationship between changes in investing cash flows and changes in stock returns	- This study analyzed Banking firms only and tested only the direct relationship using linear regression analysis -Similar independent and dependent variables for the two studies - Recommendation to carry further research in other sectors -Both studies have similar methodology for data collection
Ghodrati and Abyak (2014)	A study on the relationship between operational cash flow and return on stockholders in Tehran Stock Exchange	There is a relationship between the operating cash flow, profitability and the returns of all stakeholders.	-The study used one component of cash flow- Operating CF - Both studies have the same predictor and dependent variable -Both studies used secondary data obtained from financial statements for firms listed in respective Stock Markets
Jaeni (2014)	Analysis of the effect of Accounting Earnings and Operating Cash Flow to Stock Return of Manufacturing Companies Listed on Stock Exchanges in Indonesia	Profit Accounting and Operating Cash Flow has a positive and significant impact on stock returns, which means the higher the accounting earnings and operating cash flow, the greater the benefit shareholders will reap from their shares (stock returns)	- This study tested only the direct effect between the dependent and the independent variables of manufacturing firms - Recommendation to carry further research in other sectors

Aghaei <i>et al.</i> , (2014)	Analytical Study on the Effect of Separation of Operating Cash Flows and Accrual Items on the ability to predict cash flow and future profits in Tehran Stock Exchange	Ordinary cash flows have more ability than unusual cash flows to predict cash flows and stock returns and the ability of ordinary accrual agents is more than unrealistic accrual items in predicting future cash flows and stock returns.	<ul style="list-style-type: none"> - This study tested the direct relationship of the variables -Linear regression analysis was used to analyze data - Both studies utilized secondary data
Hamza (2014)	Relationship between the informational content of the statement of cash flows and stock returns of insurance companies in Damascus Securities Market	Statistically significant, inverse relations between stock returns and cash flows from financing information, operating information and investing information for some companies existed, and the associations for others were non-significant.	<ul style="list-style-type: none"> - Study was confined to Insurance companies and tested the direct relationship only. -Both the dependent and independent variables are the same with the current study. -Recommendation for further research
Al-saedi (2014)	Effect of cash flow of the market value of Iraqi companies in Iraq Stock Exchange	There is no significant statistical relationship between the investing cash flows of Iraqi companies and their market value, which means that investors do not consider the operating cash flow statement when making their investment decision.	<ul style="list-style-type: none"> - This study was confined to a short time span of 5 years and tested only the direct relationship of the constructs - Both studies used panel regression analysis - The variables are similar
Jintaviwatwong and Suntraruk (2012)	The informativeness of earnings and operating cash flows: Empirical evidence from the Stock Exchange of Thailand.	Current earnings and current operating cash flows are positively associated with future operating cash flows and future stock prices	<ul style="list-style-type: none"> -This study used a shorter time span of 8 years -Similar methodology -Both studies examined non-financial firms -Both studies used panel data
Habib (2011)	Growth Opportunities, Earnings Permanence, and the Valuation of Free Cash Flow in Australian Stock Exchange	Firms with greater growth opportunities and free cash flow have a higher value price, and additionally operating cash flow is positively related to stock return while profitability is short-term.	<ul style="list-style-type: none"> - Equity Valuation Theory guided this study - Both studies used a long-time span of over 10 years - Panel data regression analysis was used by both studies - Data from non- financial firms was used by the two studies

Mungo (2010)	Relationship between cash flows and profitability of commercial banks in Kenya in NSE Kenya	Cash flow from the financing and the investing information were found to have a great influence (positive) of the banks profit while operating cash flow have a negative effect.	<ul style="list-style-type: none"> - This study was confined to the Banking Sector - the study took a short time span of 5 years - Multiple regression analysis was used - Cash flow components were similar for both studies.
Durgham & Durghams (2010)	Relationship between cash flows and stock returns according to the international accounting standards In Palestine Stock Exchange	There is no relationship between shares' returns for all Banks and cash flows from the following: operating, investing and financing, and joint information other than for the Arab Bank. The findings were indicative of a positive link of operating cash flow, financing cash flow on share returns and negative link of investing cash flow and share return.	<ul style="list-style-type: none"> - This study analyzed firms in the Banking sector - Independent variables are similar - Recommendations for further research in non-banking industry.

Source; Author, 2022

2.9 Conceptual Framework

The conceptual framework was developed to show a diagrammatical presentation of the relationship of the study variables. The independent variables are operating cash flow, financing cash flow and investing cash flow while the dependent variable is the stock return. Discretionary accruals are the moderating variable while firm size and firm age were taken as the control variables. The interrelationship of the study variables is exhibited in figure 2.1.

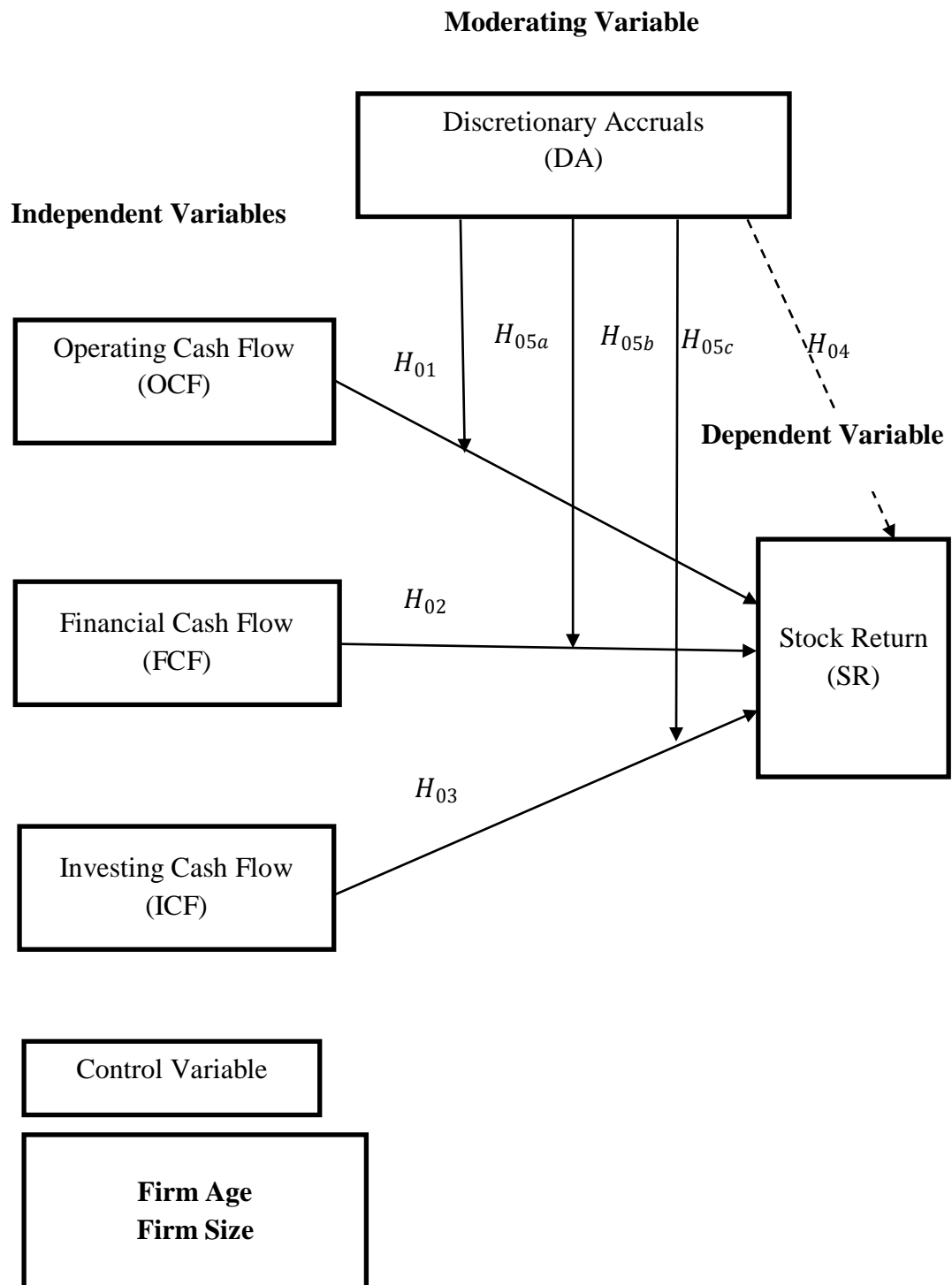


Figure 2.1: Conceptual Framework

Source; Author, 2022

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research philosophy adopted, the research design, the study area and target population, the inclusion and exclusion criteria, the data collection procedure, measurement of variables, data analysis, reliability and validity and ethical consideration.

3.2 Research Philosophy

According to Hughes and Sharrock (2016), a research philosophy refers to beliefs and perceptions regarding how a given event or occurrence should be collected, analysed, and applied. There are two prominent research philosophical leanings or paradigms: positivism and phenomenological (Mkansi & Acheampong, 2012). The term paradigm is defined as a structure founded on all widely acknowledged and accepted views on a given subject or structure of the direction that a given type of research needs to be undertaken (Blaikie, 2007). The positivism perspective is obtained from nature and its key features including formulation and testing of hypothesis whose development is informed by the already pre-existing body of theories (Novikov, 2013). This is also called theory or deductive testing and it is attained by measuring the realities already observed. The key assumption of this approach is that social world is in external as well as objective existence and that knowledge is valid based on observing the realities in the external realm. It is further assumed that the general guidelines and laws or the universe are in existence and the generalizable theoretical models should be formulated for explaining the cause-and-effect link and connection between the variables of interest.

Positivism position is strongly found on values of truth and reason besides validity, and it purely focuses on facts obtained by directly observing events and phenomena besides experience (Hughes and Sharrock, 2016). The results from the gathered observations are empirically determined with the help of quantitative techniques and statistical inferences (Blaikie, 2007). The key belief of this approach is that reality has stability, and an objective point of view can be used for its observation and exploration without necessarily bringing interference on the phenomena under investigation. The Positivism school of thought calls for the need to isolate phenomena and having in place repeated observations. This covers manipulation of realities with variability in a single independent variable and this is critical in establishing the link between the variables. The already observed as well as explained realities can help in coming up with predictions and determining existence of relationship.

On the contrary, the interpretivist school of thought holds that the fully determination and understanding of reality depends on subjective interpretation and interventions in realities. In interpretivist school of thought, phenomena are studied in its natural status and conditions. Under these views, it is also widely acknowledged that science cannot be avoided in influencing the phenomena under investigation by the study. These views maintain that although many interpretations may be in place about reality, these interpretations however, are merely part and parcel of the knowledge in scientific terms being analysed. This study adopted the positivism research philosophy; Researchers following the perspective of positivism are of the opinion that the natural scientist's philosophical position emphasizes working with observable social reality for generalization (Saunders, 2016). In addition, findings of this study can be

replicated and cash flow information isolated and observations repeatable in future studies to confirm the findings reached.

3.3 Research Design

According to Lewis (2015), the term research design is defined as a plan or an outline that specifically outlines the procedure and methods to use to gather and analyze all the information required for answering the research questions of the study. Research design is a sequence of information linking data collected empirically to the initial research questions of the study (Creswell & Creswell, 2017).

The study utilized explanatory and longitudinal research design. The study sought to establish whether there is any causal relationship between cash flow information and stock return. According to Wang *et al.*, (2015), a study of correlation repeated observation, over lengthy periods of time of the same items is a longitudinal study. It includes monitoring the changes within a specific period over time on a wide spectrum of a set of population (Wang *et al.*, 2015). Because the research in question is mainly descriptive, population parameters were generalized using sample statistics. This research concentrated on the cash flow information of non-financial firms listed at NSE as well as changes of their stock return to test the research hypotheses outlined in this study.

3.4 Target Population

The term population is used in reference to the whole group of objects that are of interest to a researcher with clearly established features in common (Gravetter & Forzano, 2012). Population is used in relation to a measure that its characteristic is of greater interest to the researcher. The study's target population included 67 NSE listed companies (listed in Appendix II). The 12-year period of empirical analysis was from

2007 to 2019 specifically. During the period, there was global financial crisis of 2008 which ravaged most of the world economies and adversely affected capital markets and stock prices (Chaudhury, 2011). Correspondingly, Kenya held three general elections in the years 2007, 2012 and 2017 which could have had significant effect in stock return in NSE (Ndung'u *et al.*, 2015). Kenya also promulgated a new constitution in the year 2010 and NSE also did structural review of policies among many changes that included the implementation of new technology to enable the industry to function efficiently and effectively (NSE, 2018). For instance, in 2010, NSE introduced its Complaints Handling Unit (CHU) to facilitate the transmission of any queries and timely access feedback to investors and the public. Also, during this period, there was not much change in the number of companies listed, i.e., there were few additional companies listed and delisted (NSE,2018). This is essential for this research as it balances the sample and makes the results more reliable. Lastly in 2005 to date, it is a requirement that consolidated financial statement including cash flow statement be prepared by publicly traded companies under IFRS (IASB, 2011).

3.5 Inclusion and Exclusion Criteria

There are 67 firms listed at NSE but a total of 19 financial firms including banks, investment and investment services were excluded and 48 firms remained to be considered in this study. The reason for excluding these firms is because there are additional regulations that govern their cash disclosure and there is no clear distinction between investing and financing cash flows. Therefore, some information was missing in their published financial statements. In addition, because financial firms are highly regulated accounting variables might be slightly different from than for non-financial firms (Rees, 1997).

An inclusion and exclusion criterion was also subjected to the 48 non-financial firms to arrive at the final number of companies that were considered in the study. Only firms that fulfilled the following conditions qualified to be included in the study; the firms must have filed its audited financial statements that contained all the study variables for the entire period of study in NSE, the company should have been incorporated on or before 2008, the firm must have not been suspended or delisted during the study period and the firm should not have changed its name within the period.

Secondary data was collected from the 48 non-financial firms but only 29 firms had all the required data for this study. Therefore, 19 firms were dropped because they failed to meet the inclusion and exclusion conditions stated above. This research was a lagged time study and looked at 29 nonfinancial firms for twelve (12) years from 2007 to 2019 translating to 348 observations. This study adopted a census survey where the 29 non-financial firms were considered for a period of 12 years (2007-2019). Table 3.1 below outlines the number of firms that qualified to be included in the study sector wise.

Table 3.1: Sampled Firms

	No of Listed		
	Firms	Included	Excluded
Agricultural Sector	7	6	1
Automobiles & Accessories	3	2	1
Energy & Petroleum	5	3	2
Manufacturing & Allied	9	5	4
Commercial & Services	11	6	5
Construction & Allied	5	4	1
Telecommunication & Technology	1	1	0
Insurance	7	2	5
Total	48	29	19

Source: (Field Data, 2022)

3.6 Nature and Type of the Data

The study used secondary data collected from the annual reports and audited financial statements sourced from NSE or downloaded from capital markets authority website for the companies under study. According to International Accounting Standards (IAS) 32 and 39, firms must disclose cash flows in their financial reports. Kenya adopted this standard in 2001 (Outa, 2011).

3.7 Data Collection Instruments

The study employed secondary data. Content analysis technique was employed for collection of data using data collection sheet (Appendix 1). The research obtained the required data for all variables from the annual NSE handbook and published audited financial statement and accounts of the firms under study filed at NSE. Use of secondary data was appropriate due to availability of audited financial reports for firms listed at NSE as required by the Companies Act CAP 486. Furthermore, it a requirement for all listed companies to file their annual financial reports with the NSE and therefore NSE handbook was the most reliable source of the secondary data needed for this research. As a tool for gathering data in secondary form, document analysis has several advantages that may include the thoughts of Corbetta (2003) who recognized that document analysis is a non-reactive technique where data presented is not subject to distortion. However, Patton (2002) argued that document guide may have certain constraints regarding accuracy of data precision and completeness.

Polit and Beck (2003) argues that in secondary studies, data is collected from previous studies with the aim of testing given formulated hypotheses. This helps in determining the relationship between the variables under consideration by the

study. It is widely acknowledged that unlike primary data, the information sought and collected from secondary sources is usually economical and efficient.

The researcher sought desk research to collect data for those companies that had data online. Dawson (2009) opines that secondary data is obtained from information of other researchers and studies done by other scholars within the same area of consideration.

3.7.1 Measurement of Variables

This study measured three independent variables (operating, financing & investing cash flows), one dependent variable (stock return) and one moderating variable (discretionary accruals) as detailed.

Dependent variable

The dependent variable of the study is stock return (SR) which contains valid information for investors and its changes are regarded as a criterion for companies' performance. Stock return refers to the compensation given to an investor by a company for postponing current consumption to invest in a company's share (Utomo *et al.*, 2018). The value of stock return fluctuates with the changes in the assigned market stock prices (Utomo *et al.*, 2018). Data regarding Stock return variable was obtained from the NSE Handbooks. This study used firms' closing end of year market share prices in line with Habib (2011) and Brigham *et al.*, (2019) studies to measure the SR variable.

$$SR_{it} = \frac{(P_{it} - P_{it-1})}{P_{it-1}} \dots\dots\dots 3.1$$

Where:

SR_{it} – Stock return for firm i for the period t

P_{it} – Price of a share for firm i for the period t .

P_{it-1} – Price of a share for firm i during the previous period $t-1$.

Independent Variables

These refers to changes in cash and cash equivalents for a firm during a certain period and are outlined in the firm's cash flow statement. They are classified into the following three categories.

Operating cash flow

These refers to cash receipts and payments resulting from the main revenue producing day to day operations of the entity and include cash received from customers and cash paid to suppliers and employees (IAS 7, 2017). Operating cash flow (OCF) variable was obtained from operating cash flow information outlined on a company's cash flow statement in a certain period minus the operating cash flow of the previous year divided by the operating cash flow of the previous year (Subramanyam, 2014).

$$OCF_{it} = \frac{OCF_{it} - OCF_{it-1}}{OCF_{it-1}} \dots\dots\dots 3.2$$

Where:

OCF_{it} – Operating cash flow for firm i for the period t .

OCF_{it-1} – Operating cash flow for firm i during the previous period $t-1$.

Investing Cash Flow

These are cash receipts and payments resulting from acquisition and disposal of fixed assets and other investments that are not considered to be cash equivalent (IAS, 7). According to Subramanyam (2014) investing cash flow (ICF) is obtained from the investing cash flow information on a company's cash flow statement in a certain period minus the investing cash flow of the previous year then divided by the investment cash flow of the previous year.

$$ICF_{it} = \frac{ICF_{it} - ICF_{it-1}}{ICF_{it-1}} \dots \dots \dots 3.3$$

Where:

ICF_{it} – Investing cash flow for firm i for the period t .

ICF_{it-1} – Investing cash flow for firm i during the previous period $t-1$.

Financing cash flow

These are cash receipts and payments resulting from change of equity capital and borrowing structure of the entity (IAS, 7). Variable measurement of financing cash flow (FCF) was gotten from the company's cash flow statement under financing information in a certain period less the financing cash flow of the previous year divided by the financing cash flow of the previous year's (Subramanyam 2014).

$$FCF_{it} = \frac{FCF_{it} - FCF_{it-1}}{FCF_{it-1}} \dots \dots \dots 3.4$$

Where:

FCF_{it} – Financing cash flow for firm i for the period t .

FCF_{it-1} – Financing cash flow for firm i during the previous period $t-1$.

Moderating variable

The study's moderating variable is *discretionary accruals* denoted as (*DA*). Accrual is the difference between the reported earnings during the period and the cash earnings during the period (Singh *et al.*, 2017). Accruals was decomposed into both non-discretionary (NDA) and discretionary (DA) which add up to total accrues (TA) (Healy, 1985). This study, therefore, adopted the modified Jones model to measure discretionary accruals. Dechow *et al.*, (1995) improved the previous version of Jones (1991) by adjusting for receivables accrued by management using their discretion at year end to increase revenue and yet cash has not been received and it is not certain whether the revenue has been earned. The modified version of Jones model computes non-discretionary accruals by adjusting for receivables.

Total Accruals was obtained by net income (earnings before taxation and extraordinary item) less cash flow from operating information in the cash flow statement (Singh *et al.*, 2017). This model assumes the relation between nondiscretionary accruals and the explanatory variables is stationary (Jones, 1991). The variables in the Ordinary Least Square (OLS) regression model are deflated by lagged total assets to reduce heteroscedasticity problems (Jones, 1991).

The current study, therefore, adopted the modified Jones model below to obtain the coefficients α_1 , α_2 and α_3 used to obtain predicted Non-discretionary accruals for different firms.

$$\frac{TA_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \dots \dots \dots 3.5$$

Where:

TA_{it} Refers to the Total Accruals in year t

A_{it-1} Refers to firm i 's Total Assets at the end of year $t-1$

ΔREV_{it} Refers to firm i 's revenues in year t less revenue in year $t-1$

PPE_{it} Refers to the gross property plant and equipment at the end of year t

α_1, α_2 and α_3 are the firm specific parameters

The discretionary accruals (residuals) were therefore obtained by deducting predicted non-discretionary accruals from the actual total accruals basing on (Healy, 1985).

Therefore, resulting to equation presented as follows.

$$NDA_{it} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \quad \dots \dots \dots 3.6$$

Where:

NDA_{it} is Non-Discretionary Accruals for firm i in year t

ΔREC_{it} Change in receivable accounts of firm i between years t and $t-1$

Therefore:

$$DA = \frac{TA_{it}}{A_{it-1}} - NDA_{it} \quad \dots \dots \dots 3.7$$

Where:

DA is discretionary accruals

Control Variables

This study controlled the following variables that were likely to affect the outcome of the study to have a distinct and clearer conclusion on the effect of the independent variables on the dependent variable.

Firm Size (FS); firm size was measured using log of total assets (Tariverdi, *et al.*, 2014; Laeven *et al.*, 2014). Measured as follows; $SIZE_{it} = \text{Log of current year total Assets}_{it}$.

Firm Age (FA); the study measured FA as the difference between the year the company was listed at NSE and the year 2019 to establish how many years the company has been in operation in line with studies by (Berger & Udell, 1998; Boone *et al.*, 2007; Borghesi *et al.*, 2007; Gregory *et al.*, 2005; Eriki, 2015).

Table 3.2: Measurement of Variables

Variables	Symbols	Measurement	Empirical Studies
Dependent variable			
Stock Return	SR	Share Price of firm <i>i</i> for the period <i>t</i> minus Share Price of firm <i>i</i> for the previous period (<i>t</i> -1) divided by Share Price of firm <i>i</i> for the previous period (<i>t</i> -1)	(Habib, 2011)
Independent Variables			
Operating Cash flow	OCF	Operating cash flow for firm <i>i</i> for the period <i>t</i> minus operating cash flow of firm <i>i</i> for the previous period (<i>t</i> -1) divided by operating cash flow of firm <i>i</i> for the previous period	(Subramanyam, 2014)
Investing Cash flow	ICF	Investing cash flow for firm <i>i</i> in a certain period <i>t</i> minus the investing cash flow of firm <i>i</i> for the previous period (<i>t</i> -1) then divided by the investment cash flow of firm <i>i</i> for the previous period (<i>t</i> -1).	(Subramanyam, 2014)
Financing Cash flow	FCF	Financing cash flow as seen from the information of financing cash flow on a company's cash flow statement for firm <i>i</i> in period <i>t</i> less financing cash flow of firm <i>i</i> for the previous period (<i>t</i> -1) then divided by the financing cash flow for firm <i>i</i> for the previous period (<i>t</i> -1).	(Subramanyam 2014).
Moderating Variable			
Discretionary accruals	DA	Measured by using discretionary accruals denoted (<i>DA</i>).	Dechow <i>et al.</i> , 1995; Ines, 2017; Singh <i>et al.</i> , 2017
Control Variables			
Firm Age	FA	Number of years a firm has been in operation since it was listed at NSE	Eriki (2015)
Firm Size	FS	Measured by natural log of current year total assets	Laeven <i>et al.</i> , (2014)

Source; (Author, 2022)

3.8 Diagnostic Tests

Regression results can be biased or false due to the potential effect of econometric issues. Several econometric tests are carried out prior to data processing to detect these econometric problems and consequently necessary actions are taken to address them. There are different methods that are deployed to deal with suspected or known econometric issues. It is anticipated that all hypothesis in this research will have similar econometric problems because the regression processes will be the same. Therefore, the following significant econometric assumptions were concisely discussed in this study.

3.8.1 Multi-collinearity

Multi-collinearity occurs when the direction of movement of two or more independent variables are the same making it impossible for standard OLS to distinguish two variables. The independent variables in this study may be suspected of multi-collinearity a priori, hence Variance Inflation Factors (VIF) was evaluated to examine level of correlation between variables after each standard OLS regression. VIF is interpreted as follows; 1, there is no multi-collinearity and between 5 and 10, there is moderate multi-collinearity. A VIF above 10 between two independent variables is a sign that there is high association leading to similar movements hence the remedy is to expunge the variables causing multi-collinearity from the model.

3.8.2 Heteroscedasticity

Heteroscedasticity refers to the change in regression residuals (error terms) over the range of measured values. This means that for all observations the error terms variance is not constant, and the minimum variance are not estimated by standard OLS. OLS regression assumes that all residuals come from a population that has constant variance (homoscedastic) hence the coefficients standard error provides

erroneous estimates rendering heteroscedasticity to be a problem. The research relies on the Breusch Pagan / Cook-Weisberg (1979) test for heteroscedasticity. Breusch Pagan test is the Lagrange Multiplier (LM) test which is based on the premise that with K degree of freedom residuals are distributed normally. The null hypothesis states that there is no heteroscedasticity while the alternate hypothesis is there is heteroscedasticity. This test is interpreted like a normal Chi-square test where a P value result of less than the significant level (confidence level of 95%) means the data is heteroscedastic and the null hypothesis is rejected, and alternate hypothesis accepted.

3.8.3 Autocorrelation

Classical Linear Regression (CLRM) is premised on the assumption that error terms across time is zero or there is no association of error error conditions generated in a regression model (Brooks, 2010). However, if the error conditions are correlated, autocorrelation or serial correlation issues are generated, leading in the standard error bias. Therefore, the normal OLS estimators are no longer the estimators of minimum variance. Therefore, Autocorrelation test is necessary to check if the standard errors exist after each Ordinary Least Square (OLS) statistical analysis. A 12-year long-term sequence analysis may lead to a priori suspicion of self-correlation. The graphical method is often used as a first-hand technique to evaluate the presence of autocorrelation. The graphical method is frequently used to assess the existence of autocorrelation as a first-hand technique. But it is necessary to perform a formal statistical test to verify the existence of autocorrelation. In order to detect autocorrelation, experiments such as Durbin-Watson (DW), Breusch-Godfrey (BG) and Wooldridge are the easiest and most frequently used tests in time series analysis. This study relied on Wooldridge test proposed by Jeff Wooldridge (2002). This test

was appropriate for this study because it has less assumptions relating to the behavior of the varied distinct effects. The null hypothesis for Wooldridge autocorrelation test is that there is no autocorrelation while the alternate hypothesis is that there is autocorrelation. If the P value is greater than the significance value (0.05 in our case) we fail to reject null hypothesis and conclude that there is no autocorrelation.

3.8.4 Normality Test

A normality test adopted from the Jarque-Bera test was conducted in the study. In addition, as suggested by Jarque and Bera (1987) for omnibus testing, skewness and kurtosis were used. Jarque-Bera statistics follows the distribution of chi-squares with two degrees of freedom. The Jarque-Bera normality null hypothesis states that the residuals follow the normal distribution while the alternate hypothesis states that residuals do not follow the normal distribution. If the P value is greater than the significant value, we fail to reject the null hypothesis. Equally, a skewness of Zero means normal distribution and a kurtosis of three means the peak of the distribution curve is normal. In instances where data distribution is not normally distributed, box plots technique is employed for individual variables to establish the presence of outliers. Therefore, to obtain a relatively normally distributed data set, all the potential far outliers plots are eliminated and do not form part of the data to be used in the study.

3.8.5 Unit Root Test

The study used panel data and therefore, there was need to determine whether the variables in question were stationary or non-stationary. Whenever there is a stationarity series, finite variance and uniform oscillations from the mean are observed (Hsiao, 2014). Consequently, there is need to test whether the variables have uniform mean and variance across time variation. It is possible to have deceptive

inferences if the information collected is not stationery and regression models gained may be spurious or affected by uneven regression problems. Before carrying out regression analysis, Panel unit root test is tested on each individual series. Judge *et al.*, (1985) and Greene (2012) recommends use of different panel unit root tests to check for consistency and robustness. Therefore, this study employed Levin-Lin-Chu test, Im-Pesaran-Shin, Fisher type unit root test based on Augmented Dickey- Fuller and Harris- Tzavallis tests to examine stationarity of the data because these tests can handle more complex models and are the most preferred tests for unit root. Ayat & Burrige, (2000), stated that these tests have gained popularity among scholars because of many competing tests in testing for unit root. This means the data must have statistical properties (mean, variance and covariance) that never vary with time. Therefore, it is important that one should first test a time series data comprising of observations that can be characterized by some stochastic procedures as random variables. Time series is only possible where data is stationary series to see if it is stationary or not (Brockwell, 2001). The hypotheses for the Unit root tests are null and alternate. The null hypothesis states that there is a unit root (data is not stationery) while the alternate hypothesis states that the data is stationery. The decision criterion is to reject null hypothesis if the p-value is less than 5% and accept the alternate hypothesis.

3.9 Data Analysis

Data cannot be of any value or meaning when it is not processed through analysis using appropriate methods. Data analysis is the process of creation of meaning from the raw data collected in the field. The process of extraction of critical variables, establishing anomalies and testing any assumption is called data analysis (Kombo & Tromp, 2009). Several information was carried out during the analysis of data where

the analyst edited, classified, and tabulated the information collected after which it was entered into appropriate statistical software. The collected research data was checked for any errors and omissions, coded, defined, and then entered in STATA.

This study used both descriptive and inferential statistics. The means, minimum, maximum, and standard deviation values was used in descriptive statistics to interpret data. Through descriptive statistics, the analyst was able to explore and provide how the variables and measurements under consideration were distributed (Creswell & Clark, 2011) and to describe, organize and summarize data (Jonker & Pennink, 2010). Correlation analysis was also done to test the strength of association of variable using Pearson product moment correlation. Pearson correlation is premised on the assumption that the information is linear and demonstrates the relationship / association between the dependent variable and the autonomous variable, whereas moderated regression demonstrates the magnitude of the impact of the autonomous factors on dependent variable. First, the information was assessed for correlation using the association coefficient r and the determination coefficient R^2 to determine the extent to which the cash flow information accounts for the change in stock returns of the non-financial firms listed in the NSE. Variables exhibiting a high level of correlation may be a sign of multi-collinearity.

3.9.1 Model specification

A panel data was used to evaluate the hypotheses. As mentioned by Hsiao (1986), panel data has several distinct advantages: it provides more degrees of liberty, reduces information differences and thus reduces the probability of multi-collinearity and enables control of fixed effects, panel data has the ability to accommodate more observations and thus reduces the degrees of liberty. It also reduces the problem of

collinearity with regressors and modeling behavioral differences within and among countries and/or organizations or organizations (Biwott, 2011; Hsiao, 2007).

This study compared the Fixed Effect Model (FEM) and the Random Effects Model (REM) using Hausman test to determine the best model for the study. Fixed effect model is used to monitor omitted variables that differ but are constant between individuals over time. If some omitted variables are continuous over time, but vary over time, then the random effect model has been evaluated to consider both types. The random effects model is ideal in instances where data is drawn from a sample since the random outcome relates to sample as opposed to fixed set which is attributable to the entire population. According to Gujarati and Porter (2009) Hausman test takes precedence over other tests in panel studies hence this study used Hausman test to obtain the coefficients that was used in the regression model.

Lee (2008) argues that the Hausman test is efficient in comparing the usefulness of these models. Therefore, a comparison of both the fixed and random impacts was implemented in the present Hausman test; hence the null hypothesis was dismissed if there was no important correlation in this test between the individual impacts and the regressors at a meaning point of 0.05%.

3.9.2 Testing for Direct Effect (H₀₁, H₀₂, H₀₃)

The model tested the direct effects of cash flow information and stock return as follows:

$$SR_{it} = \beta_{0it} + \beta_{1it}FA_{it} + \beta_{2it}FS_{it} + \beta_{3it}OCF_{it} + \beta_{4it}FCF_{it} + \beta_{5it}ICF_{it} + \varepsilon_{it} \dots \text{Eqn .3.8}$$

Where;

SR - is the measure of stock return.

β_{oit} is change in SR that independent variables present in the model cannot explain.

Note that it is the constant in the equation.

OCF – Operating cash flow

FCF – Financing cash flow

ICF – Investing cash flow

ε – is error term

i – firms at time t

t – time

3.9.3 Testing for moderation

This study followed suggestions propagated by Baron and Kenny's (1986), and Frazier *et al.*, (2004) regarding the use of hierarchical multiple regression analyses to test for moderation effect. Procedures for analyzing and interpreting the interaction terms, recommended by Aiken and West (1991), were deployed. Moderation happens when the connection between two variables varies depending on the level of another variable in magnitude, direction, or statistical significance. A hierarchical multiple regression analysis was done to analyze the effects between the variables and to check the hypotheses. The hierarchical regression analysis is used to specify a set entry order for variables to test the impacts of certain predictors, regardless of the impact of others (Pallant, 2010).

To achieve this, hierarchical regression model was used. In hierarchical regression analysis, only some of the variables are utilized simultaneously across every stage. At every step R^2 was computed to indicate the incremental alteration with the addition of the most recently entered predictor and were exclusively related with the predictor. The benefit of using hierarchical regression through a series of F-tests is to regulate the integration of variables; each phase of the interactive method approaches the determination of the true value of each variable's contribution. The coefficient of determination, R^2 , measures that part of the total variance of Y that was explained by understanding the value of X . Hierarchical regression used R^2 , F-test and the resultant regression coefficients of the model at every interaction stage to account for the total variance, overall suitability of the model and change in regression coefficients to test for moderation effect. For moderation to occur, check for a significant R^2 change as well as a significant coefficient of the interaction term. Moderation is said to be occurring if both are significant. Complete moderation is said to have happened where the independent variable and moderating variable are not significant with the interaction term added. Lastly moderation is said to have occurred where the independent variable and moderating variable are significant with the interaction term added and the main effects are also significant (Frazier, Tix, and Barron , 2004).

The study hypotheses were tested in three stages using multiple regression analysis and hierarchical moderated regression as modeled by Barron and Kenny (1986). First, independent variables were regressed with stock return for direct effects. Secondly, the interaction term was brought in the opposition of the dependent variable. Finally, the independent and moderating variables were multiplied at different stages to calculate the interaction term for each individual interaction.

$$SR_{it} = \beta_{0it} + [\beta_{1it}FA_{it} + \beta_{2it}FS_{it}] + \varepsilon_1 \dots \dots \dots \text{Eqn. 3.9}$$

$$SR_{it} = \beta_{0it} + C + \beta_{3it}OCF_{it} + \beta_{4it}FCF_{it} + \beta_{5it}ICF_{it} + \varepsilon_2 \dots \dots \dots \text{Eqn.3.9.1}$$

$$SR_{it} = \beta_{0it} + C + \beta_{3it}OCF_{it} + \beta_{4it}FCF_{it} + \beta_{5it}ICF_{it} + \beta_{6it}DA + \varepsilon_3 \dots \dots \dots \text{Eqn.3.9.2}$$

$$SR_{it} = \beta_{0it} + C + \beta_{3it}OCF_{it} + \beta_{4it}FCF_{it} + \beta_{5it}ICF_{it} + \beta_{6it}DA_{it} + \beta_{7it}OCF * DA_{it} + \varepsilon_4 \dots \dots \dots \text{Eqn 3.9.3}$$

$$SR_{it} = \beta_{0it} + C + \beta_{3it}OCF_{it} + \beta_{4it}FCF_{it} + \beta_{5it}ICF_{it} + \beta_{6it}DA_{it} + \beta_{7it}OCF * DA_{it} + \beta_{8it}FCF * DA_{it} + \varepsilon_5 \dots \dots \dots \text{Eqn .3.9.4}$$

$$SR_{it} = \beta_{0it} + C + \beta_{3it}OCF_{it} + \beta_{4it}FCF_{it} + \beta_{5it}ICF_{it} + \beta_{6it}DA_{it} + \beta_{7it}OCF * DA_{it} + \beta_{8it}FCF * DA_{it} + \beta_{9it}ICF * DA_{it} + \varepsilon_6 \dots \dots \dots \text{Eqn 3.9.5}$$

SR - is the measure of stock return.

β_{0it} is changes in *SR* that independent variables present in the model cannot explain.

Note that it is the constant in the equation. *OCF* Operating cash flow, *FCF* Financing cash flow, *ICF* Investing cash flow, *DA* = Discretionary accruals, $C = \beta_{1it}FA_{it} + \beta_{2it}FS_{it}$, ε is error term, *i* firms, *t* time.

The point of interest is whether equation 3.9.3, 3.9.4 and 3.9.5 explains the DV better than Model equ. 3.9.2. If the difference of coefficient of determination between equation 3.9.3, 3.9.4, 3.9.5 and 3.9.2 is statistically significant, we can say the moderation variable in equation 3.9.3, 3.9.4 and 3.9.5 explain the dependent variable above and beyond the variables in equation 3.9.2.

3.10 Ethical Consideration

The study strived to adhere to certain ethical issues; firstly, the researcher sought written permission from Moi University to collect data from NSE. Secondly, the researcher obtained authorization from National Commission for Science, Technology, and Innovation (NACOSTI) to conduct the research. Thirdly, the

researcher made sure that all the materials and literature used were appropriately referenced using APA style. Fourthly, the researcher ensured every word written in the document is his original work and has not been submitted for examination to other body of examination thus minimal plagiarism.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

4.1 Introduction

This chapter presents the empirical findings of the study and their interpretation in line with the objectives of the study. This includes, descriptive statistics, and diagnostic tests of assumption of the regression analysis and results of regression models and their interpretation.

The collected data was cleaned, edited, and organized in preparation for analysis and presentation. Correlation and multivariate regression analysis without and with the moderating variable were considered crucial in explaining the effect of cash flow information on stock return and to test the moderating effect of discretionary accruals on the relationship between cash flow information and stock return of firms listed at the NSE.

4.2 Descriptive Statistics

The study determined the central tendency measure for all the study variables including calculating for the mean, standard deviation, skewness and kurtosis of all the variables over the study period and presented the results of each variable in Tables 4.1 to 4.7 to show the trend movement of each variable over the 12 years study period. Table 4.8 presents aggregated summary of annual trends of the study variables.

4.2.1 Stock return

Tan *et al.*, (2012) define stock returns as the return earned from the investment that has happened (actual return) and return yet to happen (expected return). Before making an investment, an investor calculates the expected rate of return. As a result,

companies with superior financial performance will improve their firm value thereby increasing their stock return. In that regard, the study deemed it important to ascertain the stock returns for the targeted listed NSE firms. Basing on the findings in Table 4.1, the firms under study registered the highest rate of stock returns at 121.3% in 2010 (Mean = 1.213) due to global recovery after global financial crisis and depression of 2008 (World Bank, 2008). In contrast, the same firms had the lowest rate of stock return in 2016 at -39.8% (Mean = - 0.398).

Stock returns performed poorly in the year 2015, 2016 and 2019 at -5.5%, -39.8% and -37.8% respectively. This drop in stock returns is attributed to global economic slump and the adverse effect of drought and low credit to the private sector in East Africa which grew at 5.4% (World Bank, 2018). Similarly, the average standard deviation for this period was 1.900 compared to the average mean of 0.232. This implies that Stock return for the firms under study fluctuated uncontrollably over this period.

However, in 2017 and 2018 stock returns performance took a positive trajectory of 25.1% and 35.9% due to improved rains, better business sentiments and easing of political uncertainty in Kenya (World Bank, 2008). Nonetheless, in year 2019 stock performance recorded a decrease of -37.8%. Comparatively, nonfinancial firms listed in NSE reported positive skewness of 0.773 an indication that the data are uniformly distributed around the mean thus the data is symmetrical and are correctly distributed. Likewise, the kurtosis coefficient of 7.829 was within the threshold value of ten (Brown, 2006) and was therefore considered normal. Further, the stock returns did not exhibit a significant difference over the period ranging from 2008 to 2019 ($F = 1.450, p > 0.05$). This shows that the fluctuation witnessed in stock returns was statistically insignificant along the years under study.

Table 4.1: Stock Return

Year	Obs	Mean	Sd	Skewness	Kurtosis
2008	29	0.067	1.704	-1.574	7.304
2009	29	0.465	2.112	2.169	7.571
2010	29	1.213	1.967	1.924	5.561
2011	29	0.350	2.601	0.942	4.891
2012	29	0.389	1.151	2.851	11.213
2013	29	0.197	2.144	0.289	7.330
2014	29	0.320	2.526	-0.273	4.061
2015	29	-0.055	2.034	0.485	8.183
2016	29	-0.398	1.698	1.165	10.739
2017	29	0.251	1.727	0.628	9.171
2018	29	0.359	0.963	1.609	4.873
2019	29	-0.378	1.210	-0.654	6.570
Total	348	0.232	1.900	0.773	7.829
Analysis of Variance					
F		1.450			
Prob > F		0.148			

Source: (Field Data, 2022)

4.2.2 Operating Cash Flow

Gordon *et al.*, (2017) defines operating cash flow as the amount of money paid for transactions and other day to day events affecting the determination of net profit or loss. If the company's operational cash flows are successful, the residual funds will be used as internal sources of funds to finance other investments obligations without seeking for external funds. Operating cash flow also refers to cash inflow and cash outflow realized from sale of firm merchandise and providing services among others. Likewise, cash flow from operating activities includes cash collected from debtors, investment interest received, disbursements to creditors and operational expenditures, expense for taxation due and interim and proposed dividends (Bajarcharya, *et al.*, 2012).

The results in Table 4.2 indicate that operating cash flow was at its highest in 2018 at 56.1% (mean = 0.561) meaning all the nonfinancial firms liquidity was sound and these firms were able to finance their operational activities without difficulty from

internally generated funds while these firms recorded the lowest cash flow from operations in 2015 (mean = -0.370) as a result of global economic slump which was witnessed in 2015 and 2016 and its effect were felt in Kenya (World Bank, 2018).

Operating cash flow reported a mean standard deviation of 2.650 against a mean of 0.228 in the twelve years meaning the cash flow from operations experienced significant fluctuations over the years. On the other hand, there was positive skewness of 2.908 indicating that the bulk of the data was asymmetrical and distributed around the mean thus correctly distributed. Operating cash flows increased from -.113 in 2008 to .553 in 2011. This infers that listed firms in NSE could not meet their operational obligations in 2008 due to poor performance attributed to global financial crisis of 2007/2008 but subsequently in 2009 through 2011 their performance improved positively, resulting to sound financial liquidity and good business earnings and were therefore able to service their outstanding liabilities from the profits generated.

On the same breath, these results also revealed a downward dip in operating cash flows in 2012 through 2015 from 0.225 to -.370 respectively implying most of the nonfinancial firms were not able to generate adequate cash from their business activities due to the hard economic times experienced at the time due to low credit to the private sector (World Bank, 2018).

Nevertheless, this variation in operating cash flow for Nonfinancial firm listed in NSE from 2008-2019 was not statistically significant over all the years ($F = 0.36$, $p > 0.05$). That withstanding, kurtosis coefficient was 10.886 meaning it exceeded the threshold value of ten meaning the data distribution along the tails was heavily loaded and the

peak of the curve was kurtotic (steep) as compared to the ideal normal distribution curve.

Table 4.2: Operating Cash Flow

Year	Obs	Mean	SD	Skewness	Kurtosis
2008	29	-0.113	1.782	-0.883	4.767
2009	29	0.517	2.039	1.292	4.766
2010	29	0.537	1.997	1.558	4.928
2011	29	0.553	2.572	0.440	3.778
2012	29	0.225	1.774	0.581	5.289
2013	29	0.001	2.818	0.839	4.459
2014	29	0.252	2.410	-0.352	3.622
2015	29	-0.370	2.053	0.504	6.079
2016	29	0.327	4.226	3.198	5.530
2017	29	0.042	1.842	0.306	5.430
2018	29	0.561	3.519	4.237	11.503
2019	29	0.204	3.654	3.965	9.941
Total	348	0.228	2.650	2.908	10.886
Analysis of Variance					
F		0.36			
Prob > F		0.971			

Source: (Field Data, 2022)

4.2.3 Financing Cash Flow

Relates to collecting funds from outside sources in order to fund a company's operations (Nwanyanwu, 2015). When firms' floats share capital, debentures, and secure overdrafts from commercial banks to raise capital it relates to financing. Inflow of cash from financial information represents monies raised from issue of share, debenture, and bond and bank overdrafts payable within a short time while cash outflow from financial activities represents payment of debentures, bonds, overdrafts, interest on loans and distribution of shareholders stock dividends. Financing cash flow is a signal to the investors about the financial strength and an indication of a company's capital structure management (Gupta, 1992).

Table 4.3 below illustrates the financing cash flows for nonfinancial firms listed in the NSE. As indicated in the table, year 2010 had the highest mean of 66.3% in 2010

while the lowest mean of (-31.6%) was reported in 2019. Negative financing cash flows were reported for five years; 2012, 2013, 2018 and 2019. This means that most of these firms had financed their capital projects using borrowed capital and payment of these obligations was due during these periods. It simply means that most firms directed most of their cash resources towards servicing of the borrowed funds.

The positive financing cash flows on the other hand, can be interpreted to mean that majority of these firms financed their activities using retained earnings and not from external resources and retained most of these funds without investing in new projects. Comparatively, the mean standard deviation for this period was 2.160 and the mean was 0.035 implying that the firms under study experienced variations in financing cash flow during this period, Despite of this, financing cash flow did not exhibit a significant statistical difference across the study period of 2008 to 2019 ($F = 0.57$, $p > 0.05$). Further, financing cash flow reported a positive skewness of 1.224, which indicates that the data was distributed uniformly around the mean, meaning the data was symmetrical. In addition, the kurtosis coefficient which measures the steepness of the peak of the curve and the thickness of the tails of the distribution was 8.619.

Table 4.3: Financing Cash Flow

Year	Obs	Mean	SD	Skewness	Kurtosis
2008	29	-0.184	1.557	0.148	2.603
2009	29	0.208	2.433	1.666	5.480
2010	29	0.663	2.256	1.229	3.979
2011	29	0.175	2.663	0.969	3.529
2012	29	-0.268	2.826	-1.110	6.712
2013	29	-0.118	2.253	1.803	6.758
2014	29	0.339	2.028	1.141	4.183
2015	29	-0.192	1.649	1.536	8.383
2016	29	0.326	2.947	2.748	11.419
2017	29	0.007	1.720	1.756	7.705
2018	29	-0.226	1.768	-0.749	3.749
2019	29	-0.316	1.243	0.616	3.659
Total	348	0.035	2.160	1.224	8.619
Analysis of Variance					
F		0.57			
Prob > F		0.851			

Source: (Field Data, 2022)

4.2.4 Investing Cash Flow

Refers to how much funds generated from normal business activities was allocated towards procurement of fixed assets (non-current assets), amount invested in shares of other firms and treasury bonds and other investment instruments. Cash flow from investing activities describes the amount of cash that were invested by a firm within a given period. Investing cash flow may either be cash outflow or cash inflow. Cash outflows refer to cash used to procure fixed assets such as land, plant, and machinery to be used by firms to generate wealth, while cash inflow is related to sale of assets and cash inflows related to merger and acquisition and so on (Gupta, 1992).

Table 4.4 below outlines the investing cash flow for nonfinancial firms listed at NSE. The findings indicate that investing cash flow was at its highest in 2009 (mean = 1.783) and at its lowest in 2012 (mean = -0.196). The results showed that listed firms in NSE experienced negative investing cash flow in 2012, 2017 and 2019.

According to Omag (2016) negative investing cash flow realized by firms during certain period signifies that these firms purchased fixed assets such as property, plant and equipment and there were mergers and acquisitions of other firms' investments. This, therefore, means that during 2012, 2017 and 2019 nonfinancial firms listed in NSE directed most of its cash resources towards the acquisition of fixed assets whose benefits will be realized in future.

However, contrary to other two cash flows (operating cash flow and financing cash flow), investing cash flows were higher and positive throughout the 12 years period of the study except in the years 2012, 2017 and 2019. The positive trajectory means that these firms had started enjoying the returns from their investments done in the previous years or some of these firms disposed some assets that were no longer feasible to maintain.

The results further indicate that the average standard deviation of all firms under study over the period was 3.426 against a mean of 0.519. This means that this variable fluctuated significantly during the period. Likewise, a positive skewness of 5.612 for investing cash flow is reported in the table which signifies that the data was asymmetrical and were not uniformly distributed around the mean. This fluctuation can be attributed to different investment policies used by these nonfinancial firms. Likewise, the coefficient relating to kurtosis is 0.908 implying that the curve was not kurtotic and the tail of the curve was normal and not heavily loaded with data. However, of importance is that there was no significant statistical difference in investing cash flow for the twelve years under study 2008 to 2019 ($F= 0.36, \rho > 0.05$).

Table 4.4: Investing Cash Flow

Year	Obs	Mean	Sd	Skewness	Kurtosis
2008	29	0.185	2.095	-1.425	7.397
2009	29	1.783	7.744	3.402	4.158
2010	29	1.029	2.055	0.842	3.465
2011	29	0.226	2.152	0.741	4.581
2012	29	-0.196	2.593	-1.851	9.806
2013	29	0.012	1.902	-0.181	4.507
2014	29	1.420	3.104	2.602	2.430
2015	29	0.392	1.702	1.462	7.439
2016	29	1.042	5.674	4.567	3.516
2017	29	0.589	2.980	3.463	6.594
2018	29	-0.090	1.261	0.052	3.876
2019	29	-0.160	1.321	-0.403	5.046
Total	348	0.519	3.426	5.612	0.908

Analysis of Variance	
F	0.36
Prob > F	0.971

Source: (Field Data, 2022)

4.2.5 Discretionary accruals

Discretion accruals have been recognized as a performance indicator that captures management's future expectations of cash regardless of when the cash transaction takes place. In this study, the researcher identified discretionary accruals to be the moderating variable to test its effect on the relationships between cash flow information and stock return of firms listed in NSE.

Table 4.5 illustrates the trend of discretionary accruals for nonfinancial firms listed in NSE. The findings documented in the Table shows that discretionary accruals ranged from a low of -0.097 in 2015 to a high of – 0.653 in 2014. This means that in 2013 most of the firms performed dismally and managers enhanced discretionary accrual practices in 2014 to try and portray a good picture in the subsequent year. Discretionary accruals were negative in most of the years under study meaning these firms were not performing well hence negatively affecting firms' stock returns during the same period.

This is consistent to the findings of Costa (2016) who documented the deceitful effect of discretionary accruals on firm performance. Equally, the average standard deviation for all firms over the period was 2.460 and the mean was -0.105 implying that most firms did not perform well hence discretionary accruals practices across firms varied significantly. Discretion accruals reported positive skewness of 2.816 which shows that the bulk of the data was symmetrical and were uniformly distributed around the mean and therefore uniformly distributed.

Further, the kurtosis coefficient which measures the peak of the curve and the thickness of the tails of the distribution was 14.965. Besides, there was no significant statistical difference in the discretionary accruals for the targeted firms listed in NSE for the period ranging from 2008 to 2019 ($F= 0.64, p > 0.05$).

Table 4.5: Discretionary accruals

Year	Obs	Mean	Sd	Skewness	Kurtosis
2008	29	0.480	2.661	3.213	14.197
2009	29	0.178	2.327	3.430	16.365
2010	29	-0.562	1.834	-2.880	14.008
2011	29	-0.563	1.426	-0.993	6.069
2012	29	-0.189	2.154	3.469	16.582
2013	29	-0.154	2.506	1.521	8.211
2014	29	-0.653	1.983	-0.700	8.381
2015	29	-0.097	2.226	2.880	11.341
2016	29	0.020	2.500	2.843	10.813
2017	29	0.360	3.538	2.836	10.183
2018	29	-0.246	2.504	3.317	14.350
2019	29	0.167	3.279	3.134	11.547
Total	348	-0.105	2.460	2.816	14.965

Analysis of Variance

F	0.64
Prob > F	0.798

Source: (Field Data, 2022)

4.2.6 Firm Size

Firm size was measured using the logarithm of the total value of the assets of the firm (Taani & Banykhaled, 2011). From the findings in Table 4.6, the firm size for

nonfinancial firms listed in NSE was at a mean ratio of 7.290 in the year 2009 and the highest mean was recorded in year 2019 at 7.740. Firm size reported negative skewness of -0.099 indicating a negatively skewed distribution indicating most of the firms in question lied on the left side of the tail. Equally the coefficient of kurtosis was 3.99 denoting a moderate distribution implying that the distribution is normal. Tabachnick and Fidell (2007), suggests that for data to be considered normal, skewness values should not exceed 3 and kurtosis values should not exceed 10. The findings further indicate that there is no statistically significant difference in firm size for the targeted firms listed in NSE for the period under study 2008 to 2019 ($F= 0.61$, $\rho > 0.05$).

Table 4.6: Firm Size

Year	N	Mean	SD	Skewness	Kurtosis
2008	29	7.224	0.727	-0.228	3.457
2009	29	7.290	0.760	-0.364	3.151
2010	29	7.351	0.918	-0.217	4.277
2011	29	7.720	0.949	0.084	3.284
2012	29	7.650	0.827	0.590	2.927
2013	29	7.521	0.998	0.043	3.655
2014	29	7.591	1.162	-0.280	3.291
2015	29	7.670	0.924	0.818	4.206
2016	29	7.691	0.916	-0.387	3.256
2017	29	7.701	0.808	-0.037	2.576
2018	29	7.708	0.914	-0.236	2.562
2019	29	7.740	1.101	-0.564	3.192
Total	348	7.571	0.920	-0.099	3.699
Analysis of Variance					
F	0.61				
Prob > F	0.8184				

Source: (Field Data, 2022)

4.2.7 Firm Age

Firm age can be defined as the number of years a firm has been in operation since it was incorporated and listed to trade in the NSE and the year 2019. Table 4.6 presents the descriptive statistics of firm age for the nonfinancial firms listed in NSE. From the

findings in Table 4.7, the firms have operated for a period ranging from 36 years (mean = 35.603) to 41 years (mean = 41.103). Further, there was a negative skewness of -0.156 on age meaning that most of the data were concentrated on the left side of the distribution. Likewise, the kurtosis was 2.039 and was considered normal since it fell within the acceptable ranges implying the curve followed a normal distribution and both tails of the curve were lightly loaded. Further, results indicate that there was no significant difference in the firm age for the targeted listed firms in NSE across the twelve years under study ($F= 1.17, p > 0.05$).

Table 4.7: Firm Age

Year	N	Mean	Sd	Skewness	Kurtosis
2008	29	30.133	17.919	-0.165	1.966
2009	29	31.103	17.919	-0.165	1.966
2010	29	32.103	17.919	-0.165	1.966
2011	29	33.103	17.919	-0.165	1.966
2012	29	34.103	17.919	-0.165	1.966
2013	29	35.103	17.919	-0.165	1.966
2014	29	36.103	17.919	-0.165	1.966
2015	29	37.103	17.919	-0.165	1.966
2016	29	38.103	17.919	-0.165	1.966
2017	29	39.103	17.919	-0.165	1.966
2018	29	40.103	17.919	-0.165	1.966
2019	29	41.103	17.919	-0.165	1.966
Total	348	35.603	17.969	-0.156	2.039

Analysis of Variance	
F	1.17
Prob > F	0.3038

Source: (Field Data, 2022)

Finally, the summary of descriptive statistics for stock return, operating cash flow, and financing cash flow, investing cash flow, discretionary accruals, firm size and firm age are highlighted in Table 4.8 below. As indicated in the table, stock return recorded the minimum of -5.141 and a maximum of 7.104. The overall mean was 0.232. This shows that despite the stock return being below average 50%, it is higher than countries like Vietnam which had average of .209 within the same period (Dang

et al., 2017). Likewise, from the table the standard deviation was 1.9 meaning that the stock returns fluctuated uncontrollably among the nonfinancial firms listed in the NSE between 2008 and 2009.

These results also report that among the three cash flow information of the targeted firms listed in NSE; investing cash flow was the highest with mean of .519 followed by operating cash flows with mean of .228 and the least cash flow recorded by the targeted firms was financing cash flows with mean of 0.035. This means that these firms retained most of their cash flows over the years and there were no major cash outflows towards financing of fixed assets and huge capital outlay for projects. Operating cash flow recorded a minimum value was -5.359 while the maximum value was 19.353. Equally, investing cash flow had a minimum value of -10.333 and a maximum of 35.192. In addition, financing cash flow had a minimum value of -9.785 and a maximum of 12.457.

The standard deviations of operating, financing, and investing cash flows were 2.650, 2.160 and 3.426 in that order indicating that the cash flow information of nonfinancial firms listed at NSE for the period 2008 through 2019 exhibited skewed behavior and significant fluctuations. Regarding discretionary accruals the minimum value was -8.610 while the maximum was 13.631. The mean was -0.105 meaning managers of non-financial firms listed in NSE practice discretionary accruals at low levels compared to other contexts like Indonesia 0.2742 (Utomo *et al.*, 2018). Furthermore, the minimum value for firm size was 4.763; maximum was 9.916 while the mean was 7.571. Finally, most of the firms have operated for a period ranging from 12 to 69 years. On average, the listed firms in NSE have been in operation for 36 years (mean = 35.603).

Table 4.8: Descriptive Statistics Summary

Stats	N	Min	Max	Mean	p50	sd	Skewness	kurtosis
SR	348	-5.141	7.104	0.232	-0.009	1.900	0.773	7.829
OCF	348	-5.359	19.353	0.228	-0.044	2.650	2.908	20.886
ICF	348	-10.333	35.192	0.519	-0.004	3.426	5.612	50.908
FCF	348	-9.785	12.457	0.035	-0.062	2.160	1.224	8.619
DA	348	-8.610	13.631	-0.105	-0.559	2.460	2.816	14.965
FS	348	4.763	9.916	7.571	6.899	0.920	-0.099	3.699
FA	348	12.000	69.000	35.603	39.000	17.969	-0.156	2.039

KEY: Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.3 Diagnostic Statistics

The study performed statistical analysis to determine suitability of the data using numerous tests. The tests aimed at establishing whether the data met the cardinal requirements for linear regression analysis and the specific model to be utilized. Diagnostic tests were carried out to ensure that the chances of wrongly rejecting the null hypothesis and accepting the alternate hypothesis were eliminated. However, prior to testing the assumptions, Z-score was used to transform the data. The z-score is ideal in linking variables drawn from dissimilar population parameters with diverse standard deviations, means or both. This study performed the following tests: normality, multicollinearity, autocorrelation, unit root, heteroscedasticity and the hausman test. This helped in ensuring that corrective measures were carried out on the study data prior to the analysis.

4.3.1 Normality Test

Jarque-Bera test was utilized in this research to analyze the normality in data of residuals from a regression model of stock return and the independent, moderating and control variables comprising of operating cash flow, investing cash flow, financing cash flow, discretionary accrues, firm age and firm size. The prominent

Jarque-Bera test for normality is stated using the following null and alternate hypothesis.

$H_0 = \text{Residuals follows the normal distribution.}$

$H_1 = \text{Residuals do not follows the normal distribution}$

The probability of skewness is 0.038 implying (see Table 4.9) that data is normally distributed as demonstrated by the results which shows a p-value of which is greater than the significance value ($p > 0.05$). Comparatively the probability of Kurtosis is 0.458 meaning data is also normally distributed (p-value of kurtosis > 0.05). Similarly, the chi (2) is 0.087 and it can be inferred that at 0.05 significance level the results are not significant therefore we fail to reject null hypothesis and conclude that the error terms of the residuals are normally distributed. Equally, the residuals of skewness test are normally distributed and also confirmed by the Jarque-Bera normality test, chi (2) is 0.0847 implying we fail to reject null hypothesis and conclude that the normally assumption holds.

Table 4.9: Normality Tests

Test For Univariate Normality		----- joint-----		
Variable	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
My residuals	0.038	0.458	4.870	0.087
Test For Multivariate Normality				
Mardia				
mSkewness	0.074	chi2(1)	4.351	Prob>chi2 0.067
Mardia mKurtosis	2.786	chi2(1)	0.661	Prob>chi2 0.416
Jarque-Bera normality test: 4.937 Chi(2) .0847				
Jarque-Bera test for Ho: normality:				

Source: (Field Data, 2022)

4.3.2 Heteroscedasticity

Heteroscedasticity tests if the regression residuals are constant in a regression panel model. The residuals or error terms from a regression output must be homoscedastic (constant). The Breusch- Pagan test was utilized to evaluate if the error terms are constant. The null and alternate hypotheses in Breusch- Pagan test are as follows:

H_0 = Residuals are Homoscedastic

H_1 = Residuals are Heteroscedastic

Table 4.10. presents the results of this test. The decision to accept or reject null hypothesis is based on the table which shows that the p value is greater than the significance value ($p > 0.05$) therefore we fail to reject null hypothesis and conclude that residuals are homoscedastic.

Table 4.10: Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test		For
Ho: Constant variance		
Variables: my residuals		
chi2(1)	=	5.89
Prob > chi2	=	0.052

Source: (Field Data, 2022)

4.3.3 Autocorrelation

The study employed the Wooldridge test to test the presence of autocorrelation in error terms. The null and alternate hypothesis for this test is as follows:

H_0 = There is no first order serial/autocorrelation in the data.

H_1 =There is first order serial/autocorrelation in the data.

The results in Table 4.11 shows a p value of 0.8286 which is greater than the significance value of 0.05. Equally, the F static value is 0.048 meaning the F test is not significant at 0.05 significant level. Based on these results therefore, we fail to reject null hypothesis and we conclude that there is no first order serial/autocorrelation in the data.

Table 4.11: Autocorrelation

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F(1, 28) = 0.048
Prob > F = 0.8286

Source: (Field Data, 2022)

4.3.4 Multicollinearity

Multicollinearity refers to a situation where the independent variables move in the same direction during regression implying presence of correlation amongst the variables. In instances where the predictor variables are correlated multicollinearity problem is encountered in regression analysis. This study tested the existence of multicollinearity using Variance Inflation Factor (VIF) and Tolerance limits. Ghazali (2011) documents that a tolerance value in multicollinearity test above 0.10 and VIF value below 10.00 means there is no problem of multicollinearity among independent variables in the regression model.

The VIF is 1/Tolerance, and it is always greater than or adequate to 1. Basing on the findings in Table 4.12, values for tolerance were 0.701, 0.965, 0.687, 0.777, 0.747 and 0.942 while VIF were 1.43, 1.04, 1.45, 1.29, 1.34 and 1.06 which are all less than 10 indicating that there was no multicollinearity.

Further, the collinearity diagnostics table below reports the eigenvalue and condition index values. If the Eigenvalue is more than 0.01 and or the Condition Index is less

than 30, it can be concluded that multicollinearity symptoms do not occur in the regression model. Based on the Collinearity Diagnostics table, the eigenvalue value is $0.017 > 0.01$ and collinearity diagnostics (conditional index) = 13.337 is smaller than 30. Thus, this regression model shows that a multicollinearity symptom does not occur.

Table 4.12: Multicollinearity

Variable	VIF	SQRT VIF	Tolerance	R- Squared
OCF	1.43	1.19	0.701	0.299
ICF	1.04	1.02	0.965	0.035
FCF	1.45	1.21	0.687	0.313
DA	1.29	1.13	0.777	0.223
FS	1.34	1.16	0.747	0.253
FA	1.06	1.03	0.942	0.058
Mean VIF	1.27			

	Eigenval	Cond Index
1	3.031	1.000
2	1.595	1.379
3	1.013	1.730
4	0.886	1.850
5	0.455	2.581
6	0.017	13.337

Condition Number 28.1764
Eigenvalues & Cond Index computed
from scaled raw sscp (w/ intercept) From scaled Raw Sscp
Det(correlation matrix) 0.5013

KEY: Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.3.5 Panel Unit Root Test

It is important to test for the existence of unit root in panel data due to time series dimension. The results generated from time series data that contain unit root (not stationery) are false and cannot be relied upon to give consistent outcome. This study used the following tests to check for existence of unit root in the panel data (Harris &

Tzavalis, 1999; Im, Pesaran & Shin, 2003, Fisher type unit root test, and Levin, Lin & Chu, 2002). All these test states their null hypothesis as follows.

H_0 = panels contain a unit root

H_1 = panels are stationary.

Most of these panel unit root tests are suitable for cross sectional data and are not very suitable to panel data of second and third generation (Nell & Zimmermann, 2011). However, there are contemporary tests that are ideal to handle cross-sectional dependence namely, Choi (2001), Chang (2002, 2004) and Pesaran (2007). Though these tests are suitable to handle any cross-sectional dependence problems. No software's are currently available in the market.

Levin-Chin-Chu test was deployed by this study to test the existence or absence of unit root in the data series. The null hypothesis for this test states that the data series contain a unit root and the alternate hypothesis states that the data is stationary. This test is premised on the assumption that all panels have a mutual autoregressive parameter hence there are no likelihoods of some firm variables exhibiting unit roots while others do not. The Levin-Chin-Chu test includes fitting appropriate augmented Dickey-Fuller regression models for respective panels. Levin-Lin-Chu is not suitable to data series with large number of panels and limited time periods since it does well where the ratio of the panels to time periods incline to zero asymptotically. Extant literature shows that Levin-Lin-Chu test performs optimally when N and T is between 10 and 250 and 5 and 250 respectively. T is 12 while N is 29 hence the data sets of this study meets thresh-hold for Levin-Lin-Chu test.

Levin-Lin-Chu Test for unit root is a conventional unit root test and it uses an inverse normal z-statistic from Augmented Dickey Fuller with 6 lags. The null hypothesis of the presence of unit root in the series against stationary was tested (Munir, 2015). The results of the Levin Lin Chu test are presented in Table 4.13. Stock return, operating cash flow, financing cash flow, investing cash flow, discretionary accruals, firm size, and firm age showed that they are integrated of order zero denoted as $I(0)$. This is shown by a significant p-value at a 5 percent level of significance $p\text{-value} - 0.0000 < 0.05$). Since the probability values are less than 0.05, the null hypothesis of unit root is rejected in favour of the alternative hypothesis and therefore, concluded that the data is stationary at all levels.

Table 4.13: Levin-Lin-Chu Unit-Root Test

		Levin-Lin-Chu unit-root test	
		Statistic	p-value
SR	Statistic	-15.316	-6.855
	p-value		0.000
OCF	Statistic	-15.357	-6.241
	p-value		0.000
ICF	Statistic	-22.268	-17.235
	p-value		0.000
FCF	Statistic	-14.822	-7.811
	p-value		0.000
DA	Statistic	-11.384	-7.373
	p-value		0.000
FS	Statistic	-9.511	-6.902
	p-value		0.000
FA	Statistic	-26.828	-26.786
	p-value		0.000

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

The Fisher type unit root test based on augmented Dickey Fuller test was used to test for unit root. Table 4.14 illustrates the findings. The null hypothesis was that all panel contain unit roots while the alternative at least one panel is stationary. Majority of tests

had a p value below 0.05 hence null hypothesis was rejected and concluded that data was stationery. Therefore, all variables namely, operating cash flow, financing cash flow, investing cash flow, discretionary accruals, firm size and age were used at all levels. This means that the results obtained were not spurious (Gujarati, 2010).

Table 4.14: Fisher-Type Unit-Root Test Based on Augmented Dickey-Fuller test

		Inverse chi-squared (58)	Inverse normal	Inverse logit t(149)	Modified inv. chi-squared
		P	Z	L*	Pm
SR	Statistic	404.734	-13.782	-20.453	32.193
	p-value	0.000	0.000	0.000	0.000
OCF	Statistic	358.314	-12.955	-17.942	27.883
	p-value	0.000	0.000	0.000	0.000
ICF	Statistic	326.067	-13.195	-16.566	24.889
	p-value	0.000	0.000	0.000	0.000
FCF	Statistic	278.657	-11.162	-13.834	20.488
	p-value	0.000	0.000	0.000	0.000
DA	Statistic	215.483	-7.318	-9.468	14.622
	p-value	0.000	0.000	0.000	0.000
FS	Statistic	220.474	-4.974	-8.716	15.085
	p-value	0.000	0.000	0.000	0.000
FA	Statistic	2090.532	-43.759	-107.377	188.716
	p-value	0.000	0.000	0.000	0.000

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

Unit root was tested with Lm-Pesaran-Shin unit-root test. The null hypothesis was that all panel contain unit roots while the alternative hypothesis stated that some panels are stationary. As evidenced in Table 4.15, the null hypothesis is rejected since the P values of all the variables are less than the significant value and concluded that data is stationary. This, therefore, infers that the means and variances in the data do not vary with time; hence the results generated from OLS are reliable (Gujarati, 2012).

Table 4.15: Lm-Pesaran-Shin unit-root test

		Statistic	p-value
SR	t-bar	-3.737	
	t-tilde-bar	-2.304	
	Z-t-tilde-bar	-7.337	0.000
OCF	t-bar	-3.618	
	t-tilde-bar	-2.273	
	Z-t-tilde-bar	-7.110	0.000
ICF	t-bar	-3.572	
	t-tilde-bar	-2.347	
	Z-t-tilde-bar	-7.650	0.000
FCF	t-bar	-3.256	
	t-tilde-bar	-2.213	
	Z-t-tilde-bar	-6.672	0.000
DA	t-bar	-2.663	
	t-tilde-bar	-1.873	
	Z-t-tilde-bar	-4.176	0.000
FA	t-bar	-2.383	
	t-tilde-bar	-1.593	
	Z-t-tilde-bar	-2.118	0.017
FS	t-bar	-100.000	
	t-tilde-bar	-3.160	
	Z-t-tilde-bar	-13.616	0.000

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

Harris-Tzavalis unit-root test was used to determine presence of unit root in panel data. The null hypothesis was that panels contain unit roots while the alternative hypothesis was that panels are stationary. As shown in table 4.16, the P values of all variables are less than the significance value of 0.05 (5%) therefore it can be inferred that the research variables are stationary at confidence level of 95%.

Table 4.16: Harris-Tzavalis Unit-Root Test

		Statistic	z	p-value
SR	Rho	-0.026	-18.211	0.000
OCF	Rho	-0.101	-19.937	0.000
ICF	Rho	-0.156	-21.192	0.000
FCF	Rho	-0.061	-19.019	0.000
DA	Rho	0.115	-14.995	0.000
FS	Rho	0.192	-13.232	0.000
FA	Rho	0.958	4.323	0.000

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.4 Correlation Results

Correlation is used to establish the strength of association and the direction of two variables in statistical analysis. From the findings in Table 4.17, the relationship between operating cash flow and stock return was found to be positive and significant, $\rho = 0.613$, $p\text{-value} < 0.01$. Furthermore, the relationship between financing cash flow and stock return was found to be positive and significant, $\rho = 0.666$, $p\text{-value} < 0.01$. The findings also showed that the relationship between investing cash flow and stock return is positive and significant, $\rho = 0.197$, $p\text{-value} < 0.01$. Moreover, the relationship between discretionary accruals and stock return was found to be negative and significant, $\rho = -0.157$, $p\text{-value} < 0.01$. As well, the relationship between firm size and stock return was found to be negative and significant, $\rho = -0.177$, $p\text{-value} < 0.01$. Finally, the relationship between firm age and stock return was found to be negative and significant, $\rho = -0.146$, $p\text{-value} < 0.01$. From these results, all variables were significant but not perfectly correlated to stock return. Hence there was no multicollinearity amongst the variables.

Table 4.17: Correlation results

	SR	OCF	FCF	ICF	DA	FS	FA
SR	1						
OCF	.613**	1					
FCF	.666**	.537**	1				
ICF	.197**	0.096	.167**	1			
DA	-.157**	-.149**	-.117*	-0.006	1		
FS	-.177**	-0.036	-0.094	0.025	-.493**	1	
FA	-.146**	-.124*	-0.092	0.018	0.086	-.163**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.5 Random-Effects Model (REM) GLS regression

REM is premised on the assumption that the entity error terms are not related with the independent variables and therefore the invariant variables remain sovereign. Table 4.18 below documents the results of random regression model and indicates that the independent variables (cash flow from operations, cash flow from investing and cash flow from financing) together with the control variables (firm size and firm age) explained 57.2 variation of stock return. From the table, operating cash flow showed a positive and significant effect on stock return ($\beta = 0.352$, $\rho < .05$). Therefore, an increase in one unit of operating cash flow leads to an increase in the stock returns by the same unit.

Besides, financing cash flow showed a positive and significant effect on stock return ($\beta = 0.438$, $\rho < .05$). An increase in financing cash flow by one unit leads to an increase in the stock return by 0.438. Also, investing cash flow showed a positive and significant effect on stock return ($\beta = 0.096$, $\rho < .05$). This means when investing cash flow increase by one unit, stock return increase by 0.096. Likewise, firm size had a negative and significant influence on stock return ($\beta = -0.162$, $\rho < .05$). As such, an increase in firm size by one unit leads to a decline in stock return by 0.162. Finally,

firm age had a negative and significant influence on stock return ($\beta = -0.091$, $\rho < .05$) implying an increase in the firm age by one-year results in a decline in the stock return by 0.091.

Table 4.18: Random-Effects GLS regression

Random-effects GLS regression				Number of obs	=	348
Group variable: id				Number of groups	=	29
R-sq:	Within	0.573		Obs per group	Min	12
	Between	0.673			Avg	12
	Overall	0.572			Max	12
				Wald chi2(5)		456.180
corr(u_i, X)	0		(assumed)	Prob > chi2		0.000
SR	Coef.	Std.	Err.	Z	[95% Conf. Interval]	
OCF	0.352	0.042	8.350	0.000	0.269	0.434
FCF	0.438	0.043	10.280	0.000	0.354	0.521
ICF	0.096	0.036	2.680	0.007	0.026	0.167
FS	-0.162	0.036	-4.480	0.000	-0.233	-0.091
FA	-0.091	0.036	-2.510	0.012	-0.162	-0.020
_cons	0.000	0.035	0.000	1.000	-0.069	0.069
sigma_u	0.000					
sigma_e	0.658					
Rho	0.000	(fraction of variance due to u_i)				

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.6 Fixed-Effects GLS regression

The fixed effect model assumes that the entity's error terms are correlated with the predictor variables. The fixed effect model is ideal for analysis of variables that fluctuate over time. Table 4.19 below outlines the results of fixed effect regression model and indicate that 52.8% variation in stock return is explained by operating cash flow, financing cash flow, investing cash flow, firm size, and age. From the table, operating cash flow had a positive and significant effect on stock return ($\beta = 0.339$, $\rho < .05$). Consequently, an increase in operating cash flow by one unit leads to an increase in stock return by 0.339. Further, financing cash flow had a positive and

significant influence on stock return ($\beta = 0.447$, $\rho < 0.05$). This means an increase of financing cash flow by one unit leads to an increase of stock returns by 0.447.

Further, investing cash flow showed a positive and significant effect on stock return ($\beta = 0.098$, $\rho < 0.05$). This specifically means an increase in investing cash flow by one unit leads to an increase in stock return by 0.098. Moreover, firm size showed a negative and significant effect on stock return ($\beta = -0.312$, $\rho < 0.05$). This therefore means, an increase in firm size by one unit leads to a decline in stock return by 0.312. Finally, firm age showed a negative and significant effect on stock return ($\beta = -0.335$, $\rho < 0.05$) meaning an increase in firm age by one-year results to a decline in the stock return by 0.335.

Table 4.19: Fixed-effects GLS regression

Fixed-effects (within)						
Regression	Number	Of	Obs	=		
Group variable: id	Number	Of	Groups	=		
R-sq:	Within	0.587	Obs per	min	12	
	Between	0.600	group	avg	12	
	Overall	0.528		max	12	
			F(5,314)	=	89.12	
corr(u _i , Xb)	=	-0.4764	Prob > F	=	0	
					[95%	
SR	Coef.	Std. Err.	T	P>t	Conf.	Interval]
OCF	0.339	0.045	7.500	0.000	0.250	0.428
FCF	0.447	0.045	9.870	0.000	0.358	0.536
ICF	0.098	0.038	2.570	0.011	0.023	0.172
FS	-0.312	0.058	-5.350	0.000	-0.427	-0.197
FA	-0.335	0.161	-2.080	0.038	-0.651	-0.019
_cons	-0.002	0.035	-0.050	0.956	-0.071	0.067
sigma_u	0.332					
sigma_e	0.656					
Rho	0.204	(fraction of variance due to u _i)				
F test that all u _i =0:	F(28, 314) =	1.09	Prob > F = 0.3485			

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.7 Hausman Test

Hausman test was run to select the appropriate model between fixed and random effects whose coefficients will be fitted in the regression model for data analysis. The null hypothesis in Hausman test states that Random effect model is appropriate while the alternate hypothesis states that Fixed effect model is appropriate. The decision criteria is based on the p value and the significance level (0.05). if the p value is more than the significant value it means null hypothesis is upheld and the opposite equally holds.

Table 4.20 below shows the p-value was 0.0024 which was less than 0.05 meaning that the null hypothesis was rejected, and the alternate hypothesis was accepted. Therefore, this study chose fixed effect model as the appropriate model to analyze data. The fixed effect model controls for time invariant characteristics that are unique to individual firms hence the estimated coefficients of the fixed effect model lacks prejudice due to omitted time invariant characteristics (Reyna, 2007).

Table 4.20: Hausman Test

	---- Coefficients ---			
	(b) Fe	(B) Re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
Ocf	0.339	0.351	-0.012	0.016
Fcf	0.447	0.436	0.011	0.016
Icf	0.098	0.096	0.001	0.013
FS	-0.312	-0.164	-0.149	0.046
FA	-0.335	-0.096	-0.239	0.157

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$\chi^2(5) = (b-B)'[(V_b-V_B)^{-1}](b-B)$

= 18.51

Prob>chi2 = 0.0024

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.8 Effect of Discretionary accruals on Stock Return

Table 4.21 highlights the fixed model for the effect of discretionary accruals on stock return. The findings indicated that 2.5% variation in stock return is explained by discretionary accruals. From the table, discretionary accruals showed a negative and significant effect on stock return ($\beta = -0.339$, $p < .05$). Specifically, an increase in discretionary accruals by one unit leads to a decline in stock returns by -0.339 .

Table 4.21: Effect of Discretionary Accruals on Stock Return

Fixed-effects (within)				Random-effects GLS						
Regression										
R-sq:				No.of obs		348				
				No.of						
Within				0.6059		0.5985		groups	29	
Between				0.6215		0.6506		group	Min	12
Overall				0.5603		0.5918		Avg	12	
corr(u_i, Xb)				0.5361				Max	12	
	Coef.	Std. Err.	t	P>t	Coef.	Std. Err.	Z	P>z		
SR										
FA	-.581	.299	-1.94	0.053	-.189	.665	-2.84	0.005		
FS	-.672	.110	-6.09	0.000	-.458	.0766	-5.98	0.000		
OCF	.601	.0846	7.11	0.000	.632	.0787	8.03	0.000		
ICF	.220	.0712	3.08	0.002	.194	.0667	2.90	0.004		
FCF	.813	.0847	9.59	0.000	.796	.0796	9.99	0.000		
DA	-0.339	0.077	-4.420	0.000	-0.154	0.052	2.950	0.003		
_cons	0.002	0.053	0.030	0.976	0.001	0.053	0.010	0.989		
sigma_u	0.357				0.000					
sigma_e	0.984				0.984					
Rho	0.116	(fraction of variance due to u_i)								
F(1,318)	19.560									
Prob > F	0.000									
Waldchi2(1)	0.000				8.710					
Prob> chi2	0.000				0.003					
F test that all u_i=0: F(28, 318) = 1.12 Prob > F = 0.3082										
Hausman Test										
chi2(1) = 18.73										
Prob>chi2 = 0.0046										

KEY: SR = Stock Return, Discretionary Accruals (DA)

Source: (Field Data, 2022)

The random effect model for the effect of discretionary accruals on stock return is illustrated in Table 4.21. The random effect model showed that discretionary accruals explained 2.5% variation of stock return. From the table, discretionary accruals showed a negative and significant effect on stock return ($\beta = -0.154$, $p < .05$). With an increase in discretionary accruals by one unit there is a decline in stock return by 0.154 units.

4.9 Test of Hypotheses for Direct Effect of Cash Flow Information on Stock Return

The study used a fixed-effects model after running the Hausman test. This study results, therefore, used fixed effects regression coefficients as suggested by Hausman (Jerry Hausman, 1978). The hypotheses tested were **H₀₁**: Operating cash flow has no significant effect on stock return of firms listed at the NSE, **H₀₂**: Financing cash flow has no significant effect on stock return of firms listed at the NSE, **H₀₃**: Investing cash flow has no significant effect on stock return of firms listed at the NSE, **H₀₄**: Discretionary accruals has no significant effect on stock return of firms listed at the NSE.

Hypothesis 1 (H₀₁) stated that operating cash flow has no significant effect on stock return of firms listed at the NSE. Findings showed that operating cash flow had a positive and significant effect on stock return ($\beta = 0.339$, $p < .05$). The null hypothesis was thus rejected, and it was concluded that operating cash flow has a positive and significant effect on stock return. This suggested that there was up to 0.339-unit increase in stock return for each unit increase in operating cash flow. These results imply that firms that generate positive cash flows from their day-to-day business operations attract more investor confidence and trust leading to enhanced stock return.

These results are consistent with Eryani *et al.*, (2016) and Jaeni (2014) research findings which found that operating cash flow has a significant positive relationship with stock returns.

Hypothesis 2(H₀₂) stated that financing cash flow has no significant effect on stock return of firms listed at the NSE. However, the regression results indicated financing cash flow had a positive and significant influence on stock return ($\beta = 0.447$, $p < .05$). The null hypothesis was therefore not accepted, and it was concluded that an increase in financing cash flow by one unit leads to an increase in stock return by 0.447 units. These means that during the period 2008-2019 non-financial firms listed at NSE were well financed as evidenced by the positive financing cash flow. According to Santoso (2011), firms that exhibit increased financing cash flow, can utilize this strength to invest in available opportunities for the company to expand and subsequently win investors' confidence, hence positive stock returns. These findings are comparable to Legiman *et al.*, (2015), Hamza (2014) and Durgham and Durghams results which recorded a significant positive relationship between financing cash flow and stock return.

Hypothesis 3(H₀₃) stipulated that investing cash flow has no significant effect on stock return of firms listed at the NSE. On the contrary, the regression findings indicated that investing cash flow showed a positive and significant effect on stock return ($\beta = 0.098$, $p < .05$). As such, the null hypothesis was rejected. The implication is that an increase in investing cash flow by one unit leads to an increase in stock return by 0.098 units. From these results it can be inferred that non-financial firms listed in NSE during the study period invested most of its investing cash flows in productive assets in anticipation of future returns as evidenced by the low coefficient

(0.098). These results are consistent with descriptive statics results which portrayed that investing cash flows had the highest mean of 0.519. This means most of the investing cash flow was invested in revenue producing assets during the period. This study is in accordance with Ernayani *et al.*, (2016) and Sartini *et al.*, (2015), whose findings reported that the low cash flow rate of investing cash flow means that companies used their funds to invest to maximize company profits. Similarly, this study results are affirmed by Kroes and Manikas (2014) findings that financing cash flow positively and significantly influence stock returns.

Hypothesis 4(H₀₄) stated that discretionary accruals have no significant effect on stock return of firms listed at the NSE. However, the regression results indicated that discretionary accruals showed a negative and significant effect on stock return ($\beta = -0.339, p < .05$). The null hypothesis was therefore not accepted, and it was concluded that an increase in discretionary accruals by one unit leads to a decline in stock return by 0.339 units. These results imply that discretionary accruals have a negative effect on stock returns for non-financial firms listed at NSE. These findings are consistent with the results of a study by Nuryaman (2013) which reported that discretionary accruals adversely affect stock returns. Similar results were documented by Brousseau and Gu (2011) who found out that for many firms, low accruals quality translates to low returns.

4.10 Testing for the Moderation Effect of Discretionary Accruals on the Relationship between Cash Flow Information and Stock Return

In order to confirm whether discretionary accruals are making moderation effect on the relationship between cash flow information (operating cash flow, financing cash flow and investing cash flow) and stock returns, the following steps were carried out;

First, the study standardized all variables to make interpretations easier afterwards and to avoid multicollinearity. Second, the study fitted a regression model (model 1,2 and3) to predict the dependent variable (stock return). Model 1 predicts the stock return from the control variables (firm age and size), model 2 predicts stock return from the independent variables (operating cash flow, financing cash flow and investing cash flow) while model 3 predicts stock return from the independent variable plus moderating variable (discretionary accruals) and the effects as well as the model in general (R^2) should be significant. The following three conditions must be met for moderation to exist. The first requirement to be satisfied is that the difference between resultant R^2 after the interaction should be more than the R^2 before interaction and should be significant. Secondly, the resultant coefficient after the interaction term should not be zero, and this represents the simple interaction slope used for inquiring the nature of the interaction. Finally, it is anticipated that with or without the interaction the overall model should be significant (Hayes, 2013).

Third, the study added the interaction effect (OCF*DA, FCF*DA and ICF*DA) to the previous model (model 4, 5 and 6) and checked for a change in R^2 and the effect of the new interaction term which should be significant. In instances where both are significant, then this confirms that moderation is occurring. Where the independent and moderating variables are not significant with the presence of the interaction term, then it can be said that complete moderation has happened. Finally, if the independent and the moderating variables are significant with the interaction term added, then it can be deduced that moderation has occurred (Marsh *et al*, 2013), however the main effects are also significant.

According to Frazier, Tix and Barron (2004) there are three types of moderating effect namely; enhancing moderating effect whereby increasing the moderator yields to an increase in the effect of the independent variable on the dependent variable; Buffering moderating effect where increasing the moderator results to a decrease in the effect of the predictor on the dependent variable; and Antagonistic moderating effect where increasing the moderator reverse the effect of the independent variable on the dependent variables. The hierarchical regression results are presented in Model 1 to 6 in Table 4.22.

On the control variables, firm age had a beta coefficient of -1.16 and a standard error of .44 with a $p < 0.01$. Firm size had a beta coefficient of 0.85 and a standard error of .16 with a p-value less than 0.05. Interestingly control variables jointly explained 7.2% of stock return on the overall model. Thus, all the control variables were significant hence affecting the stock return.

Hypothesis (H_{05a}) stated that discretionary accruals has no significant moderating effect on the relationship between operating cash flow and stock return of firms listed in NSE. Findings from Table 4.22 showed that after introducing discretionary accruals on the relationship between operating cash flow and stock return, the beta coefficient was $\beta = 0.17$, $p < 0.05$, hence the hypothesis was rejected. Thus, there is positive and significant moderating effect of discretionary accruals on the relationship between operating cash flow and stock return by 1.2% ($\Delta R\text{-sq} = 0.012$). Based on Frazier, Tix and Barron (2004) the moderation effect is buffering since higher levels of discretionary accruals decreases the effect of operating cash flow on stock return. These findings are consistent with opportunistic managers behaviour who communicate information about future profitability by using discretionary accruals in line with Bazrafshan

(2016) findings. This implies that the presence or absence of discretionary accruals in a company will be followed by a decrease or increase in changes in operating cash flows and stock prices which then affect the amount of stock returns. The result of this study shows that the company's discretionary accruals moderate the relationship between operating cash flow and stock returns.

Hypothesis (H_{05b}) stated that discretionary accruals has no significant moderating effect on the relationship between financing cash flow and stock return of firms listed in NSE. Findings from Table 4.22 showed that after introducing discretionary accruals on the relationship between financing cash flow and stock return, the beta coefficient was $\beta = -0.14$, $p < 0.01$, hence the null hypothesis was rejected. Thus, there is negative and significant moderating effect of discretionary accruals on the relationship between financing cash flow and stock return by 2.9% ($\Delta R\text{-sq} = .029$). Based on Frazier, Tix and Barron (2004) the moderation effect is antagonistic since higher levels of discretionary accruals reverses the positive effect of financing cash flow on stock return to negative effect. Thus, discretionary accruals had a negative and significant moderating effect on the relationship between financing cash flow and stock return ($\beta = -0.14$; $p < 0.01$).

The implication is that discretionary accruals weaken the relationship between financing cash flow and stock return. This implies that the presence or absence of discretionary accruals in a company will be followed by a decrease and an increase in changes in financing cash flows and stock prices which then affect the amount of stock returns. These results imply that investors in Kenya find it unattractive to invest in firms that exhibit high financing cash flow and associate these firms with likely future financial distress. These results support Jensen agency theory (1976) and

contradicts the findings of Utomo & Pamungkas (2018). The result of this study shows that the company's discretionary accruals are able to moderate the relationship between financing cash flow to stock returns.

Hypothesis (H_{05c}) stated that discretionary accruals have no significant moderating effect on the relationship between investing cash flow and stock return of firms listed in NSE. Findings from Table 4.23 showed that after introducing discretionary accruals on the relationship between investing cash flow and stock return, the beta coefficient was $\beta = -0.14$, $p < .005$, hence the hypothesis was rejected. Thus, there is negative and significant moderating effect of discretionary accruals on the relationship between investing cash flow and stock return by 1% ($\Delta R\text{-sq} = .009$). Based on Frazier, Tix and Barron (2004) the moderation effect is antagonistic since higher levels of discretionary accruals reverses the effect of investing positive effect of investing cash flow on stock return to negative effect. Thus, discretionary accruals had a negative and significant moderating effect on the relationship between investing cash flow and stock return ($\beta = -0.14$; $\rho < 0.05$). Finally, discretionary accruals have a negative and significant moderating effect on the relationship between investing cash flow and stock return ($\beta = -0.14$; $\rho < 0.05$).

The results suggest that discretionary accruals weaken the relationship between investing cash flow and stock return. This implies that the presence or absence of discretionary accruals in a company will be followed by a decrease and an increase in changes in investing cash flows and stock prices which then affect the amount of stock returns. These results support the findings of Utomo & Pamungkas (2018) that discretionary accrual negatively and significantly moderates the relationship between investing cash flow and stock returns.

Table 4.22: Testing for Moderation Effect Discretionary accrual on the Relationship between Cash Flow Information and Stock Return

	Model 1	model 2	Model 3	Model 4	Model 5	Model 6
	Coef.(Std. Err.)	Coef.(Std. Err.)	Coef.(Std. Err.)	Coef.(Std. Err.)	Coef.(Std. Err.)	Coef.(Std. Err.)
Sr						
_cons	0.23(.10)**	-0.00(.04)	0.23(.07)**	0.26(.07)**	0.26(.06)**	0.26(.06)**
FA	-1.16(.44)**	-0.34(.06)**	-0.58(.30)	-0.55(.07)**	-0.56(.29)	-0.41(.10)
FS	0.85(.16)**	-0.31(.16)*	-0.67(.11)**	-0.69(.08)**	-0.64(.11)**	-0.65(.11)**
OCF		0.34(.04)**	0.60(.08)**	0.62(.08)**	0.61(.08)**	0.62(.08)**
FCF		0.45(.05)**	0.22(.07)**	0.81(.08)*	0.78(.07)**	0.25(.07)**
ICF		0.10(.04)*	0.81(.08)**	0.21 (.07)**	0.24(.08)**	0.70(.09)**
DA			-0.34(.10)**	-0.33(.08)**	-0.31(.10)**	-0.30(.10)**
OCF*DA				0.17(.07)*	0.18(.07)**	0.24(.07)**
FCF*DA					-0.14(.04)**	-0.14(.04)**
ICF*DA						-0.14(.05)*
R-sq:						
Within	0.108	0.587	0.606	0.613	0.629	0.637
Between	0.332	0.600	0.622	0.618	0.602	0.612
Overall	0.072	0.528	0.560	0.572	0.602	0.610
ΔR-sq		0.456	0.032	0.012	0.029	0.009
F(7,312)	19.210	89.120	80.190	70.440	65.940	60.440
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
corr(u_i, Xb)	-0.825	-0.476	-0.432	-0.406	-0.327	-0.325
hausman						
chi2(8)	16.540	18.510	18.730	19.320	18.240	16.930
Prob>chi2	0.000	0.002	0.005	0.007	0.020	0.031

KEY: SR = Stock Return, Operating Cash flow (OCF), Investing Cash flow (ICF), Financing Cash flow (FCF), Discretionary Accruals (DA), Firm Size (FS) Firm Age (FA)

Source: (Field Data, 2022)

4.11 Modgraph for Effect of Discretionary Accruals on the Relationship between Cash Flow information and Stock Return

Extant literature suggests that the most ideal way to recognize how the interaction effect of the moderator appears, is to present them graphically (Jose, 2008; Aiken & West, 1991). ModGraphs simplifies the interpretation of the otherwise intricate nature of interaction of variables in the model. Therefore, the results in Table 4.22 are plotted on ModGraphs to provide a clear understanding of interaction effects of discretionary accruals on the relationship between cash flow information (operating cash flow, financing cash flow and investing cash flow) and stock returns. The Mod

Graphs are presented in Figures 4.1, 4.2 and 4.3 respectively. This was done by plotting the mean and standard deviation with unstandardized coefficients of the main effects (operating cash flow, financing cash flow and investing cash flow), moderator (discretionary accruals) and the interaction effect on the Mod Graph. All were interpreted on low and high levels based on the main effects and the moderator (Jose, 2008). In addition, the rule of thumb is that for interaction effects to be significant, the graphs should not be parallel but have different slopes or gradient.

Figure 4.1 demonstrated that an increase in discretionary accruals decrease the slope between operating cash flow and stock return; hence, null hypothesis H05a was not supported. This implied that discretionary accruals positively and significantly moderate the relationship between operating cash flow and stock return but in decreasing order. The findings in figure 4.1 indicate a buffering moderation effect where increased discretionary accruals result in a decreasing effect of operating cash flow on stock return.

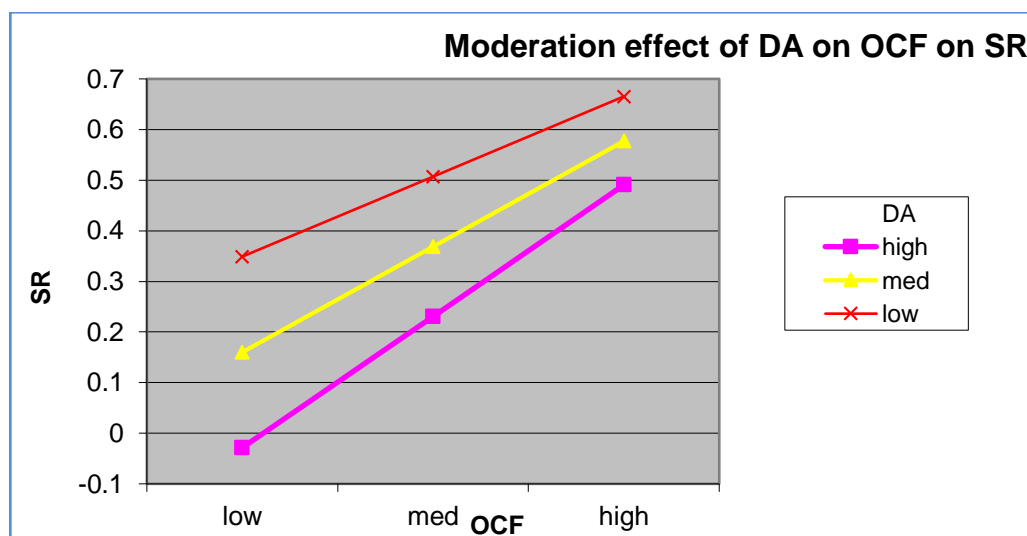


Figure 4.1: Moderating effects of Discretionary Accruals on the Relationship between Operating Cash Flow and Stock Return

KEY: SR = Stock Return, Operating Cash flow (OCF), Discretionary Accruals (DA),
Source: (Field Data, 2022)

Likewise, the modgraph in Figure 4.2 reveals that with an increase in discretionary accruals, there is a negative effect of financing cash flows on stock return. Thus, discretionary accruals negatively and significantly moderate the relationship between financing cash flows and stock returns for firms listed at the NSE. Thus, there is antagonistic moderating effect of discretionary accruals on the relationship between financing cash flows on stock return

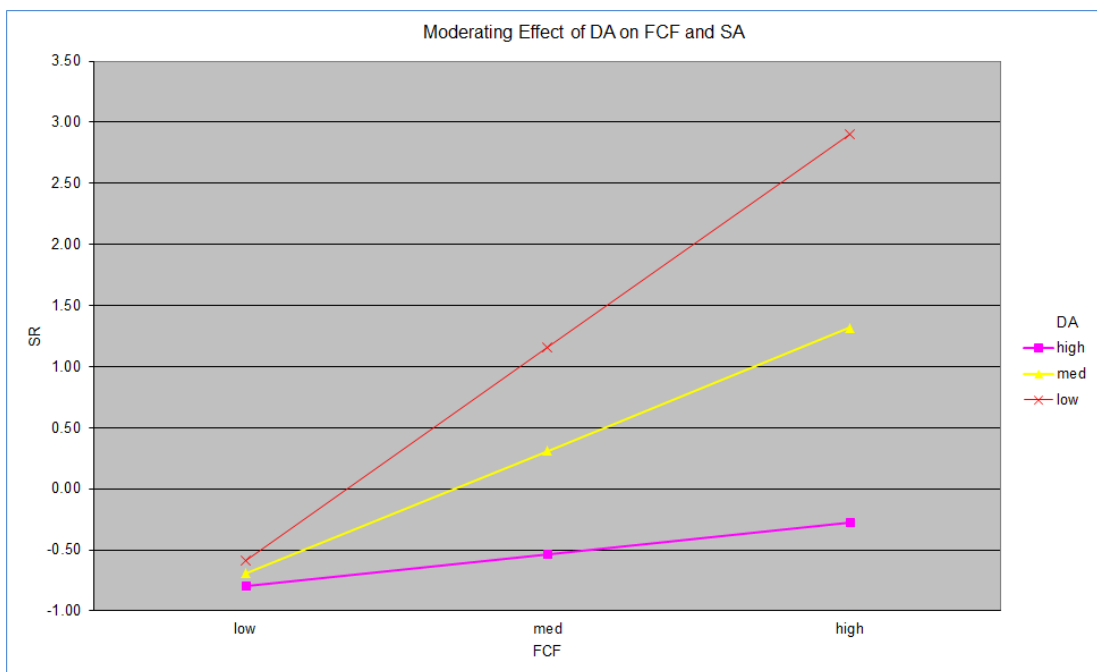


Figure 4.2: Moderating effects of Discretionary Accruals on the Relationship between Financing Cash Flow and Stock Return

KEY: SR = Stock Return, Financing Cash flow (FCF), Discretionary Accruals (DA), Source: (Field Data, 2022)

The graph in Figure 4.3 revealed that with an increase in discretionary accruals, there is a negative contribution of investing cash flows on stock returns. Thus, discretionary accruals negatively and significantly moderate the relationship between investing cash flows and stock returns of firms listed at the NSE. Thus, there is antagonistic moderating effect of discretionary accruals on the relationship between increasing cash flows on stock return.

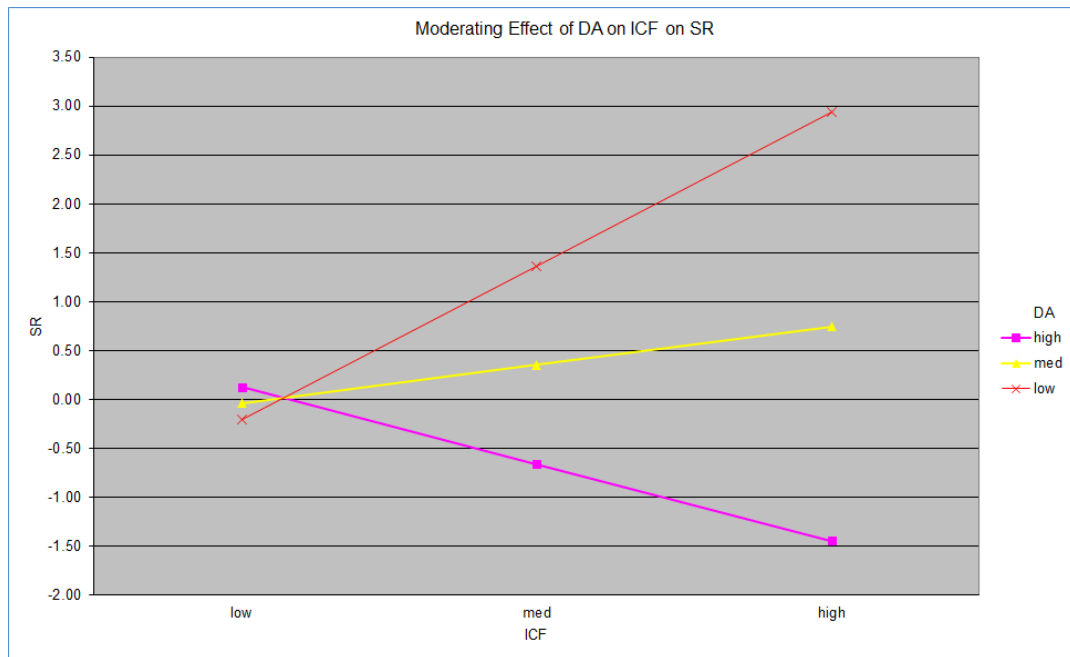


Figure 4.3 Moderating effects of Discretionary Accruals on the Relationship between Investing Cash Flow and Stock Return

KEY: SR = Stock Return, Investing Cash flow (OCF), Discretionary Accruals (DA), Source: (Field Data, 2022)

4.12 Discussion of the Findings

Based on the findings, the study discussed the results by comparing them with empirical findings of previous scholars.

4.12.1 Effect of operating Cash Flow on Stock Return of Firms Listed in NSE

Operating cash flow had a positive and significant effect on stock return ($\beta = 0.339$, $\rho < .05$). This was consistent with Fawzi (2015) and Collins (2014) research findings, which showed a significant relationship between operating cash flow and stock returns. Equally, Ghodrati and Abyak (2014) argued that there was some meaningful relationship between the operating cash flow, profitability and the stock returns to stakeholders. Besides, in the context of the Indonesia Stock Exchange, Jaeni (2014) established that Profit Accounting and operating Cash Flow has a positive and significant impact on stock returns. The implication was that the higher the accounting earnings and operating cash flow, the greater the benefits shareholders will

reap from their shares (stock returns). Further, Aghaei *et al.*, (2014) elucidated that ordinary cash flows have more ability than unusual cash flows to predict cash flows and stock return.

Likewise, Jintaviwatwong and Suntraruk (2012) found out that current future earnings and current operating cash flows are positively associated with future operating cash flows and future stock prices of non-financial firms listed on Thailand stock exchange. The findings are also consistent with that of Yocelyn and Christiawan (2012) that found a positive and significant influence of operating cash flow to share price. Equally, Ginting (2011) findings showed that the operating cash flow also has a significant influence and positive impact on stock returns. Further, the findings by Martani, Khairurizka, and Khairurizka (2009) reported that the higher the company's operating cash flow, the higher the investor's confidence in the value of the company, translating to higher stock returns

On the contrary, Santoso (2018) concluded that operating cash flow directly and indirectly has no effect on stock returns through stock prices for listed manufacturing firms on the Indonesia Stock Exchange. The same notion was shared by Foerster, Tsagarelis, and Wang (2017) who espoused that each cash flow item has a predictive value for future cash flows though the cash flow information has not yet fully reflected in stock prices. Moreover, Sharifi Mobarakeh (2011) argued that information content of free cash flows explains stock return more than operating cash flows. The bulk of the empirical studies point to a positive link between operating cash flows and stock returns except for a few that found no significant relationship. Therefore, the implication is that the higher the operating cash flows for the listed firms in NSE, the greater the stock returns.

This research is in accordance with Paradiba and Nainggolan (2015), which states that companies with higher operating cash flow figures attract more investors to put their money in the company. This will increase the firm value and stock returns. Operating cash flow also guarantees liquidity, working capital, and dividend payments so that investors are more confident in the company's performance (Ernayani and Robiyanto 2016). Operating cash flows convey incremental information content beyond that revealed by accounting earnings (Charitou *et al.*, 2000). Investors view operating cash flow as a positive signal about the company's ability to provide cash for dividend payments in the future and this attracts investors to invest their funds in the company and ultimately increases the company's stock price. Consequently, investors and the firm's management need to pay more attention to cash flow from operations to attract more investors and optimize the firm's value.

4.12.2 Effect of Financing Cash Flow on Stock Return of Firms Listed in NSE

Financing cash flow had a positive and significant influence on stock return ($\beta=0.447$, $\rho<.05$). Financing cash flow explains the changes in the amount and composition of equity and debt which include firm issuance of debentures, corporate bonds or floating equity shares. The cash earned is then used to finance capital projects or for expansion purposes of the firm to benefit the shareholders in future (Francis, 2013). The findings of this study are in line with the findings of Durgham & Durghams (2010) which showed a positive relationship between financing cash flows and shares' returns for banks. On the same vein, Chu (1997) espoused that financing cash flows positively influence stock returns in Taiwans capital market. Similarly, a study by Livnat and Zarowin (1990) reported that financing cash flow positively influences the stock returns. Comparative results were reported by Hamza (2014) who documented that there were statistically significant and inverse relations between

stock returns and financing cash flows for some companies while for others, the relationship was insignificant. However, Khanji *et al.*, (2015) found limited effect of financing cash flows on the share market value of Jordanian commercial banks.

Consistent findings were found by Chu (1997), Legiman, Tommy, and Untu (2015), and Livnat and Zarowin (1990) who reported that firms that reports high financing cash flow is a positive signal and attracts more investors. Comparatively, Santoso (2011) documented that firms that exhibit increased financing cash flow, can utilize this strength to invest in available opportunities for the company to expand and subsequently winning investors' confidence. This positive investors' reaction will push the stock prices up and, thereafter, increase the stock returns.

4.12.3 Effect of Investing Cash Flow on Stock Return of Firms Listed In NSE

Investing cash flow showed a positive and significant effect on stock return ($\beta = 0.098$, $\rho < 05$). Investing cash flows occur when cash is received from returns of investments made previously by the firm. This is a positive signal and attracts investors to invest in the company. Investing cash flows also relates to cash outflows used to acquire plant and machinery that will be used to generate revenues and future cash flows for the firm. Equally investing cash flow may be in the form of cash inflows that are earned by the firm from sale of long-term productive investments and assets. Similarly, investment cash flow provides positive signal to investors and enhances their confidence to invest in the firm. Companies with good performance are able to maximize the company's profit and improve the returns of shareholders wealth through stock returns. A study by Kroes and Manikas (2014) reported that there is an influence of investment cash flows on stock returns.

Other studies that reported similar results include Widya Trisnawaty *et al.*, (2013) which found a positive link between investment cash flows and stock returns. In a similar vein, Mutia (2012) elucidated that the cash flow component of investment information has an influence on stock returns. Similarly, these findings are consistent with that of Kheirandish & Qeisari (2014) which showed that there is a significant relationship between changes in investing cash flows and changes in stock returns. However, Khanji and Siam (2015) suggested that investment cash flow has a limited effect on its stock price.

Contrary results were documented by Ernayani and Robiyanto (2016) who reported that investment cash flow has a negative effect on stock returns. Additionally, Durgham & Durghams (2010) found no evidence of any relationship between shares' returns and investing cash flow. Conversely, this study finding is indicative of a positive link between investing cash flow stock returns for firms listed in NSE. The previous empirical literature shows that investment cash flow can have different effects on the stock returns, and sometimes produce no noticeable effect. Although this study observed a statistically significant effect, Utomo and Pamungkas (2018) reported that investment cash flow had a negative effect on stock returns. This result is also inconsistent with Khanji and Siam (2015), whose findings reported that investing cash flows has an insignificant impact on stock return. Comparatively, this study is in accordance with Ernayani and Robiyanto (2016) and Sartini and Purbawangsa (2015), whose findings reported that the low cash flow rate of investment means that companies use their funds to invest so as to maximize company profits. The more companies are investing in noncurrent assets, the smaller/ or negative the investment cash flows. Subsequently, when these investments pay back earnings that exceeds its capital costs; it enhances the firms investing cash flows

and resulting to investors' confidence to invest in the company and consequently yielding high stock returns.

4.12.4 Effect of Discretionary Accruals on Stock Return of Firms Listed in NSE

Discretionary accruals showed a negative and significant effect on stock return ($\beta = -0.339$, $\rho < .05$). This shows that high level of discretionary accruals has a negative effect on stock returns. These findings are consistent with the results of a study by Nuryaman (2013) which reported that discretionary accruals adversely affect stock returns. However, Subramanyam, (2014) argued that discretionary accruals are positively associated with stock returns and future earnings. As such, in an efficient market, managerial discretion can improve the ability of earnings to reflect favorable stock returns. In a similar vein, HierSchleifer *et al.*, (2009) argued that there is a high positive relationship between the number of discretionary accruals and stock return. The same notion was shared by Fidelis Enya Ejabu, (2020) who stipulated that there exists a significant relationship between discretionary accruals and stock return and that the firms that used discretionary accruals to influence their stock returns were firms whose stock returns were very high in the stock market.

Similarly, Brousseau and Gu (2011) found out that for the majority of firms, low accruals quality translates to low returns. Furthermore, Allissa *et al.*, (2013), Demirkhan *et al.*, (2012), and Comett *et al.*, (2009) stated that most companies use discretionary accruals to boost stock returns and hide their weaknesses and periods of declining earnings from investors. On the flip side, the extant literature (Ahmed *et al.*, 2019; Sochelan, 2017 & Abu Risha *et al.*, 2015) also points to no relationship between discretionary accruals and stock returns. It appears that there is mixed evidence on the direct effect of relationship between discretionary accruals and stock

returns. Nonetheless, the current analysis backs up the idea that discretionary accruals have a detrimental impact on the stock returns of NSE-listed companies.

4.12.5 Moderating effect of Discretionary Accruals on the Relationship between Cash Flow Information and Stock Return

Discretionary accruals positively moderate the relationship between operating cash flow and stock return ($\beta = 0.17$; $\rho < 0.05$). The findings suggest that the accounting choices and assumptions made by the firm managers are to ensure that the operating cash flow meets investors' expectations geared towards enhancement of the stock returns. In agreement with Gunny (2010) that discretionary accruals increase companies' volatility, so is the case reported among the Kenyan listed firms where majority of managers may manipulate information to yield less earnings. The liquidity ability of the firm is the concern of the owners of the companies to ensure that their companies service financial operational commitments when due. Companies desire for positive value and rating from the market hence allocate funds towards managers incentive to motivate them to improve the prospects of the firm. Lack of information by investors' drives managers to report positive information in the financial statements for their opportunistic interests. Opportunistic behaviour becomes a powerful driver in discretionary accruals.

Agency conflicts between the owners and the managers give rise to agency costs where the owners expect positive returns on investment while the managers expect to be rewarded for their good performance through bonus payment. Therefore, managers opt to utilize discretionary accrual practices to make financial statements good to attract investors to the firm to justify why they should be rewarded for the good performance.

The study results by Ball and Brown (1968) reported that change in the profits of a firm equally affects stock prices in the same magnitude. Bazrafshan (2016) similarly reported that companies provide a positive signal to the market to enhance stock price through managers self-interests. Consistently, Subramanyam (1996) indicated that discretionary accruals are positively associated with stock prices, future earnings, and cash flows. Besides, the findings, he implied that discretionary accruals contain information that is relevant to capital markets since it strengthens the influence of operating cash flow on stock returns. The findings are also like Utomo & Pamungkas (2018) who found that the relationship between operating cash flow and stock return can be moderated by discretionary accruals in manufacturing firms listed in Indonesia.

Further, there is a negative and significant moderating effect of discretionary accruals on the relationship between financing cash flow and stock return ($\beta = -0.14$; $\rho < 0.05$). Consequently, discretionary accruals weaken the relationship between financing cash flow and stock return. These findings can be linked to the reported disconnection between cash flow from financing activities and stock returns. The association in this case contradicts the findings of Collins, Hribar and Tian (2014) which documented that high financing cash flow is related to increased funding, higher profits and stock returns of the firm. Therefore, the decision of managers to inflate the stock price will be based on the level of financing cash flow.

It can, therefore, be concluded that managers' decisions of nonfinancial firms listed in NSE for the period 2008-2019; on the accounting policies and assumptions to adapt are informed by financing cash flow and stock return. Contrary findings were reported by Utomo & Pamungkas (2018) who found that discretionary accruals were able to

strengthen the relationship between financing cash flow towards stock returns in Indonesian listed manufacturing firms.

Comparatively, discretionary accruals had a negative and significant moderating effect on the relationship between investing cash flow and stock return ($\beta = -0.14$; $\rho < 0.05$). This negative moderating effect can be attributed to blurred link between firm investing cash flow and stock returns. Listed firms are highly likely to hide independent investment information from the mainstream business activities thus granting the managers the opportunity to manipulate financial statements to hide their sub-optimal investment decisions. Nonetheless, Kroes and Manikas (2014) suggests that there is a strong link between investing cash flow and stock return. The findings are also similar to Utomo & Pamungkas (2018) findings that discretionary accruals weaken the relationship between investing cash flow and stock returns in Indonesia listed manufacturing firms. Likewise, the findings of this study are contrary to the results of Subramanyam (1996) which reported that discretionary accruals are value relevant, although it contains less information for the market. Contrary findings were also documented by Sinan (2019) who found no significant moderating effect of earnings management, on the relationship between stock returns and the cash flow information in Jordanian Listed firms.

4.13 Summary of Hypotheses Testing Results

The results presented in Table below 4.23 indicated the summary of both multiple and hierarchical regression models. Thus, the table shows change (Δ) in (R^2) for the interaction effects as well as the decision on the formulated hypothesis of the study.

Table 4.23: Summary of Hypotheses Testing Results

Hypothesis Formulated	Beta (β)	ρ – values	R²	Decision
Direct Effects				
H ₀₁ : Operating cash flow has no significant effect on stock return of firms listed in NSE	0.339	0.000		Null Rejected
H ₀₂ : Financing cash flow has no significant effect on stock return of firms listed in NSE	0.447	0.000		Null Rejected
H ₀₃ : Investing cash flow has no significant effect on stock return of firms listed in NSE	0.098	0.011		Null Rejected
H ₀₄ : DA has no significant effect on stock return of firms listed in NSE	-0.339	0.000		Null Rejected
Moderation Effect				
H _{05a} : Discretionary accruals has no significant moderating effect on the relationship between operating cash flow and stock return of firms listed in NSE	0.17	0.000	0.012	Null Rejected
H _{05b} : Discretionary accruals has no significant moderating effect on the relationship between financing cash flow and stock return of firms listed in NSE	-0.140	0.000	0.029	Null Rejected
H _{05c} : Discretionary accruals has no significant moderating effect on the relationship between investing cash flow and stock return of firms listed in NSE	-0.140	0.000	0.09	Null Rejected

Source, Field data, 2022

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study findings, conclusion, and recommendations. It also provides recommendations for further research in sequence with the restrictions identified within the study. The summary of the findings and the conclusion are organized around the specific objectives and study hypotheses.

5.2 Summary of the Findings

The main objective of the study was to establish the effect of cash flow information on stock return and to test the moderating effect of discretionary accruals on the relationship between cash flow information and stock return of firms listed at the NSE. Specific objectives were: to establish the effect of operating cash flow on stock return of firms listed at the NSE, to determine the effect of financing cash flow on stock return of firms listed at the NSE, to evaluate the effect of investing cash flow on stock return of firms listed at the NSE, to establish the effect of discretionary accruals (DA) on stock return of firms listed at the NSE, to establish the moderating effect of discretionary accruals on the relationship between operating cash flow and stock return of firms listed at the NSE, to establish the moderating effect of discretionary accruals on the relationship between financing cash flow and stock return of firms listed at the NSE and to establish the moderating effect of discretionary accruals on the relationship between investing cash flow and stock return of firms listed at the NSE.

Data for this study was collected from annual NSE handbook and published audited accounts that contained the financial statements of all firms that are listed at NSE. The

study adopted a census survey where the 29 non-financial firms which met the exclusion and inclusion criteria were considered for a period of 12 years (2007-2019). Descriptive statistics such as mean, maximum, minimum, standard deviation, skewness and kurtosis were calculated. Correlation analysis was used to show the strength and direction of relationship among variables in the study. The hypotheses for direct relationship of variables were tested using the fixed effect regression model while hierarchical regression tested the indirect relationship on the moderating effect of discretionary accruals on the relationship between cash flow information and stock return.

Stationarity tests were done using Levin-Lin-Chu, Im-Pesaran-Shin unit root tests, Fisher type unit root test and Harris-Tzavalis unit-root test. The tests indicated that operating cash flow, financing cash flow, investing cash flow, discretionary accruals, firm size and age were stationary at the absolute level. Model selection was done using Hausman model specification test and study considered fixed effects regression coefficients in testing the hypotheses of direct effect of cash flow information on stock return.

Operating cash flow had a positive and significant effect on stock return ($\beta = 0.339$, $\rho < .05$), financing cash flow indicated a positive and significant effect on stock return ($\beta = 0.447$, $\rho < .05$), investing cash flow showed a positive and significant effect on stock return ($\beta = 0.098$, $\rho < .05$), while discretionary accruals showed a negative and significant effect on stock return ($\beta = -0.339$, $\rho < .05$). Discretionary accruals positively moderate the relationship between operating cash flow and stock return ($\beta = 0.17$; $\rho < .05$). Further, there is a negative and significant moderating effect of discretionary accruals on the relationship between financing cash flow and stock return ($\beta = -0.14$;

$\rho < 0.05$). Similarly, discretionary accruals had a negative and significant moderating effect on the relationship between investing cash flow and stock return ($\beta = -0.14$; $\rho < 0.05$).

5.3 Conclusions of the Study

The study outcome indicates a positive link between operating cash flow and stock returns for companies listed at the NSE. The study thus concludes that operating cash flow has a positive and significant effect on stock return. Besides, the findings suggest that positive operating cash flow is a guarantee to investors that the listed firms can meet their day-to-day operational obligations without difficulty. Therefore, the positive operating cash flow is a positive signal to investors and as a result attract more investors hence the positive stock return. These results are consistent with efficient market hypothesis theory which postulates that prices of shares in an efficient stock market adjust immediately to any information released by the company be it bad or good information. Bad information will tilt the share price down wards while good information upwards.

The study further revealed that financing cash flow significantly affects stock return. Thus, the author concludes that financing cash flow positively and significantly affects stock returns of nonfinancial firms listed at the NSE. Ideally, investors associate firms with high financing cash flow to sound financial strength, hence the ability to take advantage of the available growth opportunities. However, discretionary accruals weaken the relationship between financing cash flow and stock return for firms listed at the NSE. This study concludes that unlike other studies done in other contexts which reports that discretionary accruals positively moderate the relationship between financing cash flow and stock return, firms listed in NSE

reported contrary findings. This means investors in Kenya are aware that opportunistic discretionary accrual hinders market participants' ability to make informed judgments about financing cash flow allocation, resulting to low stock returns. The Author therefore concludes that discretionary accruals in Kenyan negatively moderates the relationship between financing cash flow and stock returns.

Equally, investing cash flow affects stock return among firms listed at the NSE. From the findings, the author concludes that investing cash flow significantly and positively affects stock returns in Kenya. This indicates that firms with low levels of investing cash flow attract investor confidence and, ultimately enhanced stock returns. More so, low levels of investing cash flow is a positive signal to investors that the firm invested in capital assets that will yield positive returns in future.

Finally, the study indicates that discretionary accruals negatively influenced the stock returns for listed firms in NSE and thus the author concludes that discretionary accruals negatively and significantly moderate the relationship between investing cash flow and stock return. This means that the discretionary accruals are less informative, and investors are aware that the agency costs postulated by the agency theory motivates managers to invest in suboptimal projects and hide their opportunistic behavior through discretionary accruals using accounting policy decisions and assumptions. These policies do not send a good signal to the market, resulting to lower stock returns.

5.4 Recommendations

The study concludes that Operating cash flow has a positive influence on the stock returns of firms listed at the NSE. Consequently, the study recommends that firms should practice prudent utilization of cash resources by developing and adopting

effective cash generating strategies because high operating cash flow enhances the stock return. Furthermore, because the market responds to information from cash flows, firms should publicize audited financial statements together with cash flow statements annually to boost their relevance to investors. The firms could also boost the stock returns by forecasting future operating cash flows to boost investor trust and confidence.

Further, financing cash flow enhances the stock return of firms listed at the NSE. Therefore, firms listed at NSE should work towards enacting policies that assists managers to identify and finance viable growth projects since high financing cash flow increase stock return. On the same vein, the managers should spend financing cash flows for the intended purposes to avoid agency costs attributable to managers opportunistic behavior to cushion firms from financial crisis that can negatively impact on the stock returns. On the same breadth, the firms should strive to finance their projects through internally generated cash flows (retained earnings) to avoid diluting the proportion of shareholding which affects stock returns.

In addition, investing cash flow positively and significantly influenced the stock returns of firms listed at the NSE. This study recommends that firms listed at NSE should prioritize investing in revenue generating assets to attract investor confidence and trust hence high stock returns. On the same vein, it is important for listed firms to appreciate the statement of cash flow as a vital component of the annual report that guides investors in making investment decisions.

Finally, discretionary accruals contributed to a decline in the stock returns for listed firms at the NSE. Therefore, the study recommends that managers of nonfinancial firms listed in NSE should not communicate information about future profitability

using discretionary accruals. For stakeholders, it is important for them to know existence of discretionary accruals when analyzing stock investment decisions. Finally, the NSE should develop incisive regulations that outline acceptable thresholds of discretionary accruals permitted to managers to address abnormal deviations in financial statements through selection of certain accounting policies to enhance investor confidence.

Grounded on the study findings, conclusions and the recommendations, the study therefore, provides theoretical, policy and managerial implications and suggestions on areas for further research.

5.4.1 Theoretical Implication

The study contributes to theoretical framework by testing three cardinal theories namely, efficient market hypothesis, signaling, agency and free cash flow theories. Firstly, this study supports efficient market hypothesis which postulates that information released by companies whether bad or good will reflect in market stock prices immediately. The study formulated three hypotheses to test this theory as follows; operating cash has no effect on stock return, financing cash flow has no effect on stock return and investing cash flow has no effect on stock return. All the three hypotheses were rejected, and the study concluded that cash flow information positively affects stock returns. This means therefore, that market efficiency assumptions are confirmed by this study and conclude that when financial statements are released stock prices adjust immediately based on the cash flow information.

Secondly, this study tested the direct effect of discretionary accruals on stock returns and the moderating effect of discretionary accruals on stock returns. Extant literature has given conflicting results on this relationship. This study tested agency and free

cash flow theories which postulates that with the separation of ownership and management of firms, divergent interests between the shareholders and the managers yields to agency costs which motivates managers to carry out opportunistic discretionary accruals with the aim of meeting shareholders expectation. Discretionary accrual involves deliberate intervention in the financial accounting process to achieve private goals and influence stock return. The hypothesis that there is no effect of discretionary accruals on stock return was formulated and tested. This hypothesis was rejected and concluded that discretionary accruals have a negative and significant effect on stock return.

In addition, three hypotheses were formulated and tested by introducing discretionary accruals as a moderating variable as follows; discretionary accruals does not moderate the relationship between operating cash flow and stock returns, discretionary accruals does not moderate the relationship between financing cash flow and stock returns and discretionary accruals does not moderate the relationship between investing cash flow and stock returns, These hypotheses were rejected and concluded that discretionary accruals moderate the relationship between cash flow information and stock return. This study therefore confirmed agency and free cash flow theories and affirmed that managers use discretionary accruals practices to influence stock return. The findings further showed that discretionary accruals have negative effect on the relationship between cash flow information and stock returns.

Finally, this study tested signaling theory on the moderating effect of discretionary accruals on the relationship between cash flow and stock return. Signaling theory suggests that there is presence of information asymmetry between the company management and the parties concerned with the company information. The

information reflected in financial statements is used to signal the market about financing tactics where good firms try to separate themselves from bad ones. According to Ross (1977) debt could be used as a costly signal for bad debts to mimic. This information could be the accounting policies and strategies adopted in financing among many others. If the information presented is real (positive) information, it will provide a positive signal to users of financial statement. Based on the findings of the direct effect, interestingly financing cash flow indicated the highest influence on stock returns which supports the assumptions of signaling theory. However, for the theory to be confirmed fully, the study tested the moderating effect of discretionary accruals on the relationship between the three cash flow information and stock return and ideally, a significant effect whichever direction was predicted.

The results indicated a negative moderating effect for all the three variables contrary to studies done in other contexts which showed that discretionary accruals positively moderate the relationship between cash flow information and stock return. Based on these findings therefore, the signaling theory was confirmed and the study concludes that discretionary accruals negatively affect the relationship between cash flow information and stock return.

The study findings, therefore, contributes enormously to theory and future scholarly work especially on the moderating effect of discretionary accruals on the relationship between cash flow information and stock return. Of interest are the inconclusive and divergent findings in literature on this topic. This study will therefore, act as a source of reference to future scholars to carry out similar studies and test theoretical implications of efficient market hypothesis, signaling, Agency and free cash flow theories in other contexts since very few studies have been done in this area.

5.4.2 Policy Implication

On policy, this study provides policy guidelines for listed firms in Kenya that aim to make optimal cash flows information that increases stock returns. It also recommends that policymakers must develop well-established cash flows information guidelines in Kenya to create awareness of cash flows that yields high stock returns. Given the lack of empirical evidence on the issue, the results provide useful insights that financing cash flows yields higher stock returns compared to the other two cash flow information (operating cash flow and investing cash flows).

Discretionary accruals negatively affect stock returns, and firms should therefore be restricted from the use of this practice. Therefore, accounting guidelines issued by International Accounting Standards Board (IASB) should encourage the clarification of true and fair value of the prevalence of substance over form in all financial transactions to deter this opportunistic behavior by managers

Finally, NSE should enact strict regulations that outlines acceptable threshold of discretionary accruals that managers are permitted to do, to enhance the stability of stock returns and attract investor confidence.

5.4.3 Managerial Implication

The findings of this study provide new knowledge to managers that discretionary accrual practices negatively moderate the relationship between cash flow information and stock returns of nonfinancial firms listed in NSE, contrary to empirical findings in other contexts. This, therefore, implies that investors' confidence in firms that practice discretionary accruals dwindle leading to decreased demand of the firms' shares hence drop in stock returns.

Equally, based on the findings of this study auditors need to focus more on cash flow information and their implication on stock returns with or without discretionary accrual practices by managers. This study has demonstrated that investors in Kenya mostly rely on financing cash flow to predict future stock returns. Therefore, there is need for the Institute of Internal Auditors (IIA) to strengthen accounting and auditors' code of ethics in Kenya to deter auditors from concealing discretionary accruals practices by firm managers. More so existing shareholders are also comfortable with external borrowing and internally generated funds to finance projects since it does not dilute their shareholding proportion, hence there is need for auditors and other regulators to give an assurance to investors that these funds are invested in profitable projects.

5.4.4 Suggestions for Further Research

The primary objective of the study was to establish the effect of cash flow information on stock return and to test the moderating effect of discretionary accruals on the relationship between cash flow information and stock return of nonfinancial firms listed at the NSE. Future studies can further investigate all the firms listed in NSE by including banking and investment firms and analyze the results sector by sector. The moderating variable utilized in this study is discretionary accruals measured using modified Jones model. The study suggests future studies to replicate the same study and utilize different contemporary measurement models of discretionary accruals in empirical literature. In addition, the study also suggests future studies to include other accounting ratios as independent variables to investigate further this phenomenon. Finally, the study suggests that future studies on this subject should investigate individual effect of variables in each cash flow category (operating, financing, and

investing) on stock returns as opposed to the current study which utilized aggregated figures of cash flow information.

REFERENCES

- Abbadi, S.S., Hijazi, Q.F., Al-Rahahleh, A.S. (2016). Corporate governance quality and earnings management: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal*, 10(2), 54-75.
- Abed, S., Al-Attar, A., Suwaidan, M. (2012). Corporate governance and earnings management: Jordanian evidence. *International Business Research*, 5(1), 216.
- Abiodun, Babalola Y. (2013). The effect of firm size on firms' profitability in Nigeria. *Journal of Economics and Sustainable Development*, Vol. 4, No. 5
- Abu Al-Rub, L. (2019). *Financial Ratios Extracted from Operating Cash Flows to Earnings Per Share. Master Thesis, College of Business - Accounting Specialization, Middle East University, Amman – Jordan*. Retrieved from http://meu.edu.jo/libraryTheses/5ca89eecddde1_1.pdf
- Abu Risha, K., Hameedat, M., & Alissa, M. (2015). Factors affecting merit settlement under management control. An empirical study on industrial shareholding companies listed on the Amman Stock Exchange, *Jordan journal of business administration* 11(3), 727-744
- Abu-Abbas, B. M. (2014). Direct, Indirect, or Both Methods of Reporting Operating Statement of Cash Flows, *International Journal of Finance and Accounting*, 3(6), 335-340
- Adelegan OJ (2003): "An Empirical Analysis of the Relationship between Cash flows and Dividend Changes", *A paper presented at the 23rd Annual Congress of the European Accounting Association, Munich, Germany* p.5
- Aghaei, Mohammad, A., Sepazi, Sahar and Kazempour (2014). Morteza, Analytical Study on the Effect of Separation of Operating Cash Flows and Accrual Items on the ability to predict cash flow and future profits. *Financial Management Strategy, Second Year*, 7(3): 75-89
- Aghaei, Mohammad, A., Shakeri and Amir (2010). Application of liquidity, cash flow and accrual accounting ratios in forecasting future operational cash flow of firms accepted in tehran stock exchange. *Financial Journal Accounting, Second Year, Number*, 2(5): 1-16.
- Agiomirgianakis, George & Magoutas, Anastasios & Sfakianakis, George. (2013). Determinants of Profitability in the Greek Tourism Sector Revisited: The Impact of the Economic Crisis. 1. 12-17.
- Ahmed O, & Walid M, Dr. & Rasha Z. (2019). The Impact of Earnings Management on Stock Returns for Listed Industrial Firms on the Amman Stock Exchange. *Business and Economic Research*. 9. 1. 10.5296/ber.v9i3.15011.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage.

- Akbas, H.E., & Karaduman, H.A., (2012), "The effect of firm size on profitability: An empirical investigation on Turkish manufacturing companies", *European Journal of Economics, Finance and Administrative Sciences*, 55, 21-27
- AL- Khalaileh, Mahmoud (2013), The relationship between cash flows and stock returns in the longer-term", *Dirasat Journal ,University of Jordan*, Volume 25, Issue 1
- Al Kharshqah, K. (2014). *The impact of earnings management on stocks returns the case study of industrial & services companies listed in Amman Stocks Exchange ASE*, (Unpublished master's thesis). Yarmouk University, Jordan.
- Al Saedi, A.A. (2014). Earnings Management and its Relationship with Stock Returns: An Empirical Study on a Sample of Qatari Listed Industrial Companies. *Academy of Accounting and Financial Studies Journal*, 22(5), 1-12.
- Al-Amoudi, Al-Khayyal, A., & Tawfik. (2011). A study on the relationship between cash flows and earnings per share. King Abdulaziz University, *Journal of Economics and Administration*, 135-181.
- Albrecht, W. S. (2003): *Fraud Examination Manson*, Ohio, Thomson and South-Western
- Alfonso, Elio & Christie, Andrew & Hollie, Dana & Yu, Shaokun. (2018). Determinants and economic consequences of cash flow restatements. *Journal of Accounting and Public Policy*. 37. 10.1016
- Alissa, W., Bonsall IV, B.S., Koharki, K., and Penn Jr. W.M., (2013), "Firms use of accounting discretion to influence their credit ratings". *Journal of Accounting and Economics*, Volume 55, Pages, 129-147.
- Al-khalaileh, M. (2013). *Financial Analysis Using Accounting Data*, (7th Edition). Dar Wael Publishing & Distribution, Jordan, Amman.
- Al-saedi, A. A. (2014). The effect of cash flow on the market value of Iraqi companies listed at Iraq stock, *AL-Qadisiya Journal For Administrative and Economic Sciences*, 16(1), 137-148.
- Alzoubi, Ebraheem. (2016). Ownership structure and earnings management: Evidence from Jordan. *International Journal of Accounting & Information Management*. 24. 135-161. 10.1108/IJAIM-06-2015-0031.
- Ambreen, S. & Aftab, J. (2016). "Impact of Free Cash Flow on Profitability of Firms Listed in Karachi Stock Exchange ". *Euro-Asian j. econ. finance*. 4. 113-122
- Amihud, Y. (2002). Illiquidity and stock returns: Cross-section and time-series effects. *Journal of Financial Markets*,5,31–56.
- Andani, A., & Al-hassan, S. (2007). The Determinants of the Financing Decisions of Listed and Non-Listed Firms in Ghana. *Asian Economic and Financial Review*, 2(7), 751– 81 771.

- Arab Mazar Yazdi, Mohammad Safarzadeh and Mohammad Hossein (2007). Breakdown of profit and forecast of future operating cash flows. *Accounting and Auditing Reviews*, 14(49): 111-38.
- Ardian A, & Khoiruddin, M. (2014). Pengaruh Analisis Kebangkrutan Model Altman Terhadap Harga Saham Perusahaan Manufaktur. *Management Analysis Journal*, 3(1), 1–14
- Artikis, Panagiotis, G., Papanastasopoulos and Georgios, A. (2016). Implications of the cash component of earnings for earnings persistence and stock returns. *The British Accounting Review*, 48(2): 117-33.
- Aryanti, Mawardi, & Selvi Andesta. (2016). Pengaruh ROA, ROE, NPM dan CR Terhadap Return Saham pada Perusahaan yang Terdaftar di Jakarta Islamic Index (JII). *I-Finance Vol. 2 No. 2*, pp. 54.
- Ascioglu, A., Comerton-Forde, C., McInish T.H., (2011), Stealth Trading: The Case of the Tokyo Stock Exchange, *Pacific Basin Finance Journal*, 19, pp. 194–207.
- Atmaz, Adem & Basak, Suleyman. (2018). Belief Dispersion in the Stock Market. *The Journal of Finance*. 10.1111/jofi.12618.
- Auzairy, Noor & Ahmad, Rubi & Ho, Catherine. (2011). The Impact of Stock Market Liberalization and Macroeconomic Variables on Stock Market Performances. *2011 International Conference on Financial Management and Economics IPEDR vol.11*, ACSIT Press, Singapore
- Ayat, L., & Burrige, P. (2000). Unit root tests in the presence of uncertainty about the non-stochastic trend. *Journal of Econometrics*, 95(1), 71-96.
- Bachtiar, Y. S, (2008). *Accrual and Information Asymmetry*. Field Research: Accounting. University of Indonesia.
- Bajarcharya, P., et al., (2012) *Management Accounting*. Asmita Books Publishers & Distributors, Kathmandu.
- Baker, Malcolm & Wurgler, Jeffrey. (2015). The Risk Anomaly Tradeoff of Leverage. *Electronic Journal*. 10.2139/ssrn.2577948.
- Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research*, 6, 159-178.
- Ball, R., Gerakos, J., Linnainmaa, J. and Nikolaev, V. (2016). Accruals, cash flows, and operating profitability in the cross section of stock returns. *Journal of Financial Economics*, 121(1): 28-45.
- Ball, R., Gerakos, J., Linnainmaa, J. T. & Nikolaev, V. V. (2015). Deflating profitability. *Journal of Financial Economics*, 117, 225-248.

- Balsam S, Marquart C.A., Bartov E., (2002), Accruals management, investor sophistication, and equity valuation: evidence from 10-Q filings, *Journal of Accounting Research*, vol.40, No4, pp 987 – 1012
- Balsam S, Marquart C.A., Bartov E., (2012), Accruals management, investor sophistication, *Journal of Accounting Research*, vol.40, No4, pp 987 – 1012
- Bamber L. S, Cheon Y. S, Christensen T. E. (2001), « Factors associated with differences in the magnitude of abnormal returns around NYSE versus Nasdaq firm's earnings announcements, *Journal of Business Finance & Accounting*, vol.28, No 9 & 10,
- Banerjee, S., Gucbilmez, U. and Pawlina, G. (2016) Leaders and followers in hot IPO markets. *Journal of Corporate Finance*, 37, pp. 309-334.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182
- Bazrafshan, Ebrahim, S. Amene Kandelousi, Chee-Wooi Hooy. (2016). The Impact of Discretionary accruals in the Extent of disclosure and True Financial Performance: Evidence form Listed Firms in Hong Kong. *The British Accounting Review*, Vol. 48, Issue 2, pp 206-219
- Beaver W., Eger C., Ryan S., Wolfson M., (1989), Financial reporting, supplemental disclosures, and bank share prices, *Journal of Accounting Research*, vol. 27, N°2, pp157-178
- Becker-Blease, John & Kaen, F.R. & Etebari, A. & Baumann, H.. (2010). Employees, firm size and profitability in U.S. manufacturing industries. *Investment Management and Financial Innovations*, 7(2). 119-132.
- Berger, A.N. and Udell, G.F. (1998) The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle. *Journal of Banking and Finance*, 22, 613-673.
- Berggren, S., & Bergqvist, A. (2014). *Capital Structure and Stock Returns-A study of the Swedish large cap companies*. Unpublished Bachelor Thesis, University of Gothenburg
- Berry, L. E. (2011). *Financial Accounting Demystified*. New York: Mc Graw Hill.
- Beyer A (2009), Capital Market Prices, Management Forecasts, and Discretionary accruals, *Accounting Review*, Vol. 84, No. 6, 2009
- Bhandari, Shyam & Iyer, Rajesh. (2013). Predicting business failure using cash flow statement-based measures. *Managerial Finance*. 39. 667-676. 10.1108/03074351311323455.
- Bhaumik, S.K., Gregoriou, A. (2010). 'Family' ownership, tunnelling and earnings management: A review of the literature. *Journal of Economic Surveys*, 24(4), 705-730

- Biwott, (2011) “The relationship between working capital management practices and the profitability of companies quoted at the NSE”, *Unpublished thesis, University of Nairobi*
- Blaikie, N. (2007). *Approaches to Social Inquiry*, 2nd edition, Cambridge: Polity
- Boone, A. L., Field, L. C., Karpoff, J. M. and Raheja, C. G. (2007) The determinants of corporate board size and composition: An empirical analysis, *Journal of Financial Economics*, 85, 65-101
- Borghesi, R., Houston, J., & Naranjo, A. (2007). Value, Survival, and the Evolution of Firm Organizational Structure. *Financial Management*, 36(3), 5-31.
- Bosnia, H. (2012). *The role of the accounting audit in activating control earnings management*. A study of a sample of Algerian and French economic institutions, (Unpublished master’s thesis). Farhat Abbas University, Algeria
- Boudriga, A., Boulila Taktak, N., Jellouli, S. (2009). Bank specific, business and institutional environment determinants of nonperforming loans: Evidence from MENA countries, *ERF, 16th Annual Conference, November 7-9, Cairo, Egypt*,
- Boyd, K., Epstein, L., Holtzman, M.P., Shraibman-Kass, F., Loughran, M., Sampath, V.S., Tracy, J.A., Tracy, T.C.& Weltok, J.G. (2014). *Accounting All-in-One for Dummies*. New Jersey: John Wiley and Sons. 7.
- Boyd, T. & Cortese-Danile, T. M (2000). *Using the Cash Flow Statement to Improve Credit Analysis*. Commercial Lending Review, Winter, v. 16, n. 1, p. 55-59
- Brad A. Badertscher, (2011). Overvaluation and the Choice of Alternative Earnings Management Mechanisms, *The Accounting Review*, Vol. 86, No. 5, pp. 1491-1518
- Breusch, T.S. and A.R. Pagan, (1979), A simple test for heteroscedasticity and random coefficient variation, *Econometrica* 47, 1287- 1294
- Brockwell, P. (2001). *Continuous-time ARMA processes*. Handbook of Statistics. 19. 249-276. 10.1016/S0169-7161(01)19011-5.
- Brooks, C (2010), *Introductory Econometrics of Finance*, 2nd ed., the ICMA Center, University of Reading, CAMBRIDGE University press
- Brousseau, C. and Gu, Z. (2011). How is Accruals Quality Priced by the Stock Market? *University of Minnesota Working Paper Series, Minneapolis*, 16-64.
- Budagaga A (2017). Dividend payment and its impact on the value of firms listed on Istanbul Stock Exchange: A residual income approach. *International Journal of Economics and Financial Issues* 7(2):370- 376.
- Bukit, R., & Nasution, N.F. (2009). Employee Diff, Free Cash Flow, Corporate Governance and Discretionary accruals. *Preocedia Social and Behavioral Scrences*, 211, 585-594.

- Burgstahler D., Hail L., Leuz C., (2014), The importance of reporting incentives: earnings management in European private and public firms, *Working Paper, Wharton Financial Institutions Center*
- Campa, Domenico & Camacho-Miñano, María-del-Mar, (2015). "The impact of SME's pre-bankruptcy financial distress on discretionary accruals tools," *International Review of Financial Analysis, Elsevier*, vol. 42(C), pages 222-234.
- Caprio, Gerard, Jr & Demirguc-Kunt, Asli, (1998). "The Role of Long-Term Finance: Theory and Evidence," *World Bank Research Observer, World Bank Group*, vol. 13(2), pages 171-189,
- Cardoso, C. T. F., Martinez, L. A., &Teixeira. C. J. A. (2014). Free Cash Flow and Discretionary accruals in Brazil: The Negative Side of Financial Slack. *Global Journal of Management and Business Study Accounting and Auditing*, 14(1), 84-96
- Carter, R., Dark F. & Singh A. (1998). Underwriter reputation, initial returns, and the long-run performance of IPO stocks, *The Journal of Finance*, 53: 285-311.
- Celiker, Umut & Kayacetin, Nuri Volkan & Kumar, Raman & Sonaer, Gokhan. (2016). Cash Flow News, Discount Rate News, and Momentum. *Journal of Banking & Finance*. 72. 240-254. 10.1016/j.jbankfin.2016.07.016.
- Chalak, S. L., & Mohammadnezhad, S. (2012). Investigation of the relationship between discretionary accruals and free cash flows in firms with high free cash flows and low growth listed in Tehran Securities Exchange. *World Applied Sciences Journal*, 20(3), 429–437.
- Chambers, D. (2005). Earnings persistence and the accrual anomaly working paper. 1-38. Available: www.ssrn.com
- Chan, H., & Faff, R. (2016). Asset Pricing and the Illiquidity Premium. *The Review of Financial Studies*, 429–458.
- Chang, Y. (2002). Nonlinear IV-unit root tests in panels with cross sectional dependency. *Journal of Econometrics*, 110, 261–292. doi:10.1016/S0304-4076(02)00095-7
- Chang, Y. (2004). Bootstrap unit root tests in panels with cross sectional dependency. *Journal of Econometrics*, 120, 263–293. doi:10.1016/S0304-4076(03)00214-8
- Charitou, A., Dionysiou, D., Lambertides, N. & Trigeorgis, L. (2000). Alternative bankruptcy prediction models using option-pricing theory. *Journal of Banking & Finance*, 37, 2329-2341
- Charitou, Andreas and Lambertides, Neophytos and Theodoulou, Giorgos, (2010) The Effect of Past Earnings and Dividend Patterns on the Information Content of Dividends When Earnings are Reduced. *Abacus*, Vol. 46, No. 2, pp. 153-187,

- Chen, J. and Shane, P. (2014). Changes in cash: persistence and pricing implications. *Journal of Accounting Research*, 52(3): 599-634.
- Cheng, C. S., Lee, B. S., & Yang, S. (2013). The value relevance of earnings levels in the return-earnings relation. *International Journal of Accounting and Information Management*, 21(4), 260-284.
- Chi, S. (2014). Entrepreneurship culture among SMEs in Zimbabwe: A case of Bulawayo SMEs. *International journals of economics, commerce and management*, 2(9) 1-3.
- Choi, I. (2001). Unit root tests for panel data. *Journal of International Money and Finance*, 20, 249–272. doi:10.1016/S0261-5606(00)00048-6
- Chu, E (1997), 'Impact of earnings, dividends and cash flows on stock returns: Case of Taiwan's stock market', *Review of Quantitative Finance and Accounting*, vol. 9, no. 2, pp. 181-202
- Chung, Huimin, Her-Jiun Sheu, and Juo-Lien Wang. (2019). “Do Firms’ Discretionary accruals Practices Affect Their Equity Liquidity?” *Finance Research Letters* 6 (3): 152–58
- Chung, R., Firth, M., & Kim, J.B. (2005). Discretionary accruals , Surplus Free Cash Flow, and External monitoring. *Journal of Business Study*, 58, 766-776
- Coad A.; Segarra, A. & Mercedes T., (2010), “Like milk or wine: Does firm performance improve with age?” *Papers on Economics and evaluation*, 1006.
- Cohen, Daniel A., and Thomas Z. Lys. (2016), “Weighing the Evidence on the Relation between External Corporate Financing Information, Accruals and Stock Returns.” *Journal of Accounting and Economics* 42 (1): 87–105.
- Collins, D.W., Hribar, P., & Tian, X.S. (2014). Cash flow asymmetry: Causes and implications for conditional conservatism research. *Journal of Accounting and Economics*, 58(2-3), 173-200
- Collins, D.W., Hribar, P., & Tian, X.S. (2014). Cash flow asymmetry: Causes and implications for conditional conservatism research. *Journal of Accounting and Economics*, 58(2-3), 173-200.
- 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.
- Corbetta, P. (2003) *Social Research Theory Methods and Techniques*. SAGE Publications Ltd., London.
- Corhay, A., Hawawini, G., and Michael, P. (2015a): "The Pricing of Equity on the London Stock Exchange: Seasonality and Size Premium," in Dimson, E. (1987).
- Corhay, A., Hawawini, G., and Michael, P. (2015b): "Seasonality in the Risk-Return Relationship: Some International Evidence," *Journal of Finance*, 42, 49-68.

- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research. (2nd ed.)*. Thousand Oaks, CA: Sage
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach*. Sage publications
- Croce D, R & Fiona S, & Juan Y. (2015). Promoting Longer-Term Investment by Institutional Investors: Selected Issues and Policies. *OECD Journal: Financial Market Trends*. 12-12. pp10.1787
- Cukur S. & Gumrah U., (2012). Initial Public Offerings and investor sentiment: The case of an emerging market, *Journal of Money, Investment and Banking* 23: 25-38
- Cupertino, César & Martinez, Antonio & da Costa Jr, Newton. (2000). Consequences for Future Return with Earnings Management through Real Operating Activities. *Revista Contabilidade & Finanças*. 27. 232-242
- Custódio, C. and D. Metzger, (2014), Financial Expert CEOs: CEO's Work Experience and Firm's Financial Policies, *Journal of Financial Economics* 114, 125-154.
- Dagar, A. (2014). Role of stock market in economy development. *International Journal of Management Research & Technology*, 5(8), 86-92.
- Daily, C.M., Certo S.T., Dalton D.R., & Roengpitya R, (2005). IPO underpricing: a meta-analysis and research synthesis, *Entrepreneurship: Theory and Practice*, 27 (3): 271-295
- Daneshfar. D & Mohammed. J (2009). Use of earnings information for stock pricing in different market cycle: The effect of discretionary accruals. *Journal of Business and Economics Research*, 7(5): 2153-2157
- Dang, V. A., Kim, M., & Shin, Y. (2017). Asymmetric capital structure adjustments: New evidence from dynamic panel threshold models. *Journal of Empirical Finance*, 19(4), 465-482.
- Dangol, R.M. (2011) *Management Accounting*. 5th Edition, Taleju Parkashan, Kathmandu
- Darek, K., (2012) Liquidity Gaps in Financing the SME Sector in an Emerging Market: Evidence from Poland. *International Journal of Emerging Markets* 7(3): 335-355
- Dastgir, M, Sharifi Mobarakeh, R (2011). The Relationship between Cash Flows and Stock Return, *Hesabras Journal*, 5(2)
- Dawar, V (2014). "Agency theory, capital structure and firm performance: some Indian evidence," *Managerial Finance*, Emerald Group Publishing, 40(12), pages 1190-1206,

- Dawson, C. (2009) *Introduction to Research Methods: A Practical Guide for Anyone Undertaking a Research Project* (4th ed.).
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the Sec*. *Contemporary Accounting Research*, 13(1), 1-36.
- Demirkhan, S., Radhakrishnan, S. and Urcan, O. (2012). Discretionary Accruals Quality Cost of Capital and Diversification. *Journal of Accounting, Auditing and Finance*, 27 (4), 496-526
- Dergham, S. (2008). A study on the relationship between cash flows and earnings per share – 2008, *An applied study on national banks operating in Palestine. Master Thesis, Islamic University, Gaza, Palestine*. Retrieved from <http://maherlayouti.hooxs.com/t71-topic#top>
- Dogan, M., (2013), “Does Firm Size Affect the Firm Profitability? Evidence from Turkey”, *Research Journal of Accounting and Finance*, 4(4).
- Dontoh A., Rouen J., (1993), Information content of accounting announcements, *The Accounting Review*, 68(4), pp 857 – 869
- Dumontier P., Raffournier B, (2012), Accounting and capital markets: a survey of the European evidence, *The European Accounting Review*, 11(1)
- Durgham, S. A., & Durgham, M. M. (2010). The relationship between cash flows and stock returns according to the international Accounting Standards, (7), An applied study on working national Banks in Palestine, *Arab Management Journal*, 30(2), 45-80
- Dutzi, A., and Rausch, B. (2016). Discretionary accruals before Bankruptcy: A Review of the Literature. *Journal of Accounting and Auditing: Research & Practice*, 21 pages, DOI: 10.5171/2016.245891.
- Ebrahimi, M and Chadegani, A.A. (2011). “The Relationship between Earning, Dividend, Stock Price and Stock Return: Evidence from Iranian Companies”, *International Conference on Humanities, Society and Culture IPEDR Vol.20*.
- Effiong, C., Inameti, E. E., Ernest, A. N. and Arikpo, N. N., (2018). Strategic management of sales promotion techniques on products consumers of selected retail outlets in Calabar metropolis of Cross River State, Nigeria. *Global Journal of Social Sciences*.17, 2018, 41-53
- Eisdorfer, Assaf. (2007). The Importance of Cash-Flow News for Financially Distressed Firms. *Financial Management*. 36. 33-48. 10.1111/j.1755-053X.2007.tb00079.x.
- Ekpulu, Godspower & Omoye, A. (2018), Ownership Structure and Discretionary accruals: Evidence from Nigerian Listed Firms.

- Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82(5), 804–818. <https://doi.org/10.1037/0022-3514.82.5.804>
- Enomoto, M., Kimura, F., & Yamaguchi, T. (2015). Accrual-based and real earnings management: An international comparison for investor protection. *Journal of Contemporary Accounting & Economics*, 11(3), 183-198.
- Eriki, P & Osifo, Osagie. (2015). Determinants of performance efficiency in Nigerian banking industry: A DEA approach. *International Journal of Economics, Commerce and Management*. III. 1-13.
- Ernayani, R. & Robiyanto, Robiyanto. (2016). The effect of the cash flows, gross profit and company size on the Indonesian stock returns: (A Study on the Basic and Chemical Industry Companies During the Periods of 2009-2014). 14. 339-351.
- Fama, E. F., & French, K. R. (1992). The Cross-Section of Expected Stock Returns. *The Journal of Finance*, 47, 427-465.
- Farshadfar, Shadi & Monem, Reza. (2013). Further Evidence on the Usefulness of Direct Method Cash Flow Components for Forecasting Future Cash Flows. *The International Journal of Accounting*. 48.
- Faulkender, M. & Wang, F. (2006), Cash holdings among small businesses, Working paper, Washington University.
- Fawzi, N.S., Kamaluddin, A., & Sanusi, Z.M. (2015). Monitoring distressed companies through cash flow analysis. *Procedia Economics and Finance*, 28, 136-14
- Fenandar, I., Gany dan Raharja, Surya (2013) “The Influence of Investment Decisions, Funding Decisions, and Dividend Policy on Firm Value”. *Accounting Journal*. Vol 1, No 2, Hal 01-10. Semarang: UNDIP
- Fidelis. Effiong, Sunday & Ejabu, (2020). Liquidity Risk Management and Financial Performance: Are Consumer Goods Companies Involved? *International Journal of Civil Engineering and Technology*. 9. 2277-3878.
- Fite, D., Pflleiderer, P. (1995), “Should Firms Use Derivatives to Manage Risk?”, in Beaver W., Parker, G. (Ed.), Risk Management: Problems and Solutions, McGraw-Hill, New York, pp. 61-76.
- Foerster, S., Tsagarelis, J. and Wang, G. (2015). *Are cash flows better stock return predictors than profits?* Unpublished working paper, Western University.
- Foerster, Stephen & Tsagarelis, John & Wang, Grant. (2017). Are Cash Flows Better Stock Return Predictors Than Profits?. *Financial Analysts Journal*. 73. 1-27. 10.2469/faj.v73.n1.2.
- Francis, J., LaFond, R., Olsson, P. and Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics*, 39(2): 295-327.

- Francis, J., LaFond, R., Olsson, P.M., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics*, 39(2), 295-327.
- Francis, J., Nanda, D. J. and Olsson, P. (2008). Voluntary disclosure, earnings quality and cost of capital. *Journal of Accounting Research*, 46(1): 53-99.
- Francis, R. N. (2013). The Relative Information Content of Operating and Financing Cash Flow in the Proposed Cash Flow Statement. *Accounting and Finance*, 50, 829-851.
- Frank, P.B. and James, K.O. (2014). An Investigation of Cash flow and Corporate Performance: A Study of Selected Food and Beverages Companies in Nigeria. *European Journal of Accounting Auditing and Finance Research*, 2(7): 77-87
- Frazier, P. A., Tix, A. P., and Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51(1):115–134.
- Frazier, PA, Tix, AP, & Barron, KE (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115-134.
- Gambacorta, Leonardo & Jang, Y. & Tsatsaronis, Kostas. (2014). Financial structure and growth. *BIS Quarterly Review*, 21-35.
- Gerakos, Joseph & Lang, Mark & Maffett, Mark. (2013). Post-listing performance and private sector regulation: The experience of London's Alternative Investment Market. *Journal of Accounting and Economics*. 56.
- Ghazali, Aziatul Waznah., Shafie, Nur Aima., and Sanusi, Zurai dah Mohd. (2015). Earnings Management: An Analysis of Opportunistic Behaviour, Monitoring Mechanism and Financial Distress. **Procedia Economics and Finance** 28.
- Ghodrati,H. & Abyak, H. (2014). A study on the relationship between operational cash flow and return on stockholders. *Quarterly Publication, Vol 4 (7)*, pp. 1551-1558
- Ginting, Bobby Minola. (2011) *Two-Dimensional Flood Propagation Modeling Generated by Dam-Break Using Finite Volume Method*. Master Theses Institut Teknologi Bandung, October 2011, Bandung, Indonesia.
- Glaum, M., Lichtblau, K., & Lindemann, J. (2004). The extent of discretionary accruals in the US and Germany. *Journal of International Accounting Research*, 3(2), 45-77
- Gordon, Elizabeth & Henry, Elaine & Jorgensen, Bjorn & Linthicum, Cheryl. (2017). Flexibility in cash flow classification under IFRS: Determinants and consequences. *Review of Accounting Studies*. 22

- Graham, G & Woodfield, W & Harrison, J. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *The Internet and Higher Education*. 18. 4-14.
- Gravetter, F. J., & Forzano, L. B. (2012). *Research Methods for the Behavioral Sciences* (4th ed.). Belmont, CA Wadsworth.
- Greene, W. (2012) *Econometric Analysis*. 7th Edition, Prentice Hall, Upper Saddle River.
- Gregory, B. T., Rutherford, M. W., Oswald, S., & Gardiner, L. (2005). An Empirical Investigation of the Growth Cycle Theory of Small Firm Financing. *Journal of Small Business Management*, 43(4), 382-392.
- Gujarati, D.N. (2012) *Basic Econometrics*. Tata McGraw-Hill Education, Noida.
- Gujarati, D.N. and Porter, D.C. (2010) *Econometría*. McGraw-Hill, México.
- Gujarati, D.N. and Porter, D.C. (2009) *Basic Econometrics*. 5th Edition, McGraw Hill Inc., New York.
- Gul, F. and W. Pesendorfer, (2001): "Temptation and Self-Control," *Econometrica*, 69, 1403—1436.
- Gulzar, M.A. (2011). Corporate governance characteristics and earnings management: Empirical evidence from Chinese listed firms. *International Journal of Accounting and Financial Reporting*, 1(1), 133.
- 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.
- Gupta, Rangan & Modise, Mampho. (2013). Does the source of oil price shocks matter for South African stock returns? A structural VAR approach. *Energy Economics*. 40. 825-831. 10.1016/j.eneco.2013.10.005.
- Gupta, S.P. (1992) *Management Accounting*. 2nd Edition, Agra Sahitya Bhandar, Kathmandu.
- Gupta, M., Mathur, I., And Mishra, S. (2009). Earning management, consequences for bid-ask spread and market liquidity. Southern Illinois university –edwar sville *department of economics & finance*. (50): pp. 101-122.
- Gursoy, C. T. (2012). *Financial Management Principles*. 2. Print. Istanbul. Beta Bookstore.
- Habib, A. (2008). The role of accruals and cash flows in Explaining security returns: Evidence from New Zealand, *Journal of International Accounting, Auditing and Taxation*, 17(1), 51-66. <https://doi.org/10.1016/j.intaccaudtax.2008.01.003>

- Habib, A. (2011). Growth Opportunities, Earnings Permanence and the Valuation of Free Cash Flow, *Australian Accounting Business and Finance Journal*, 5(4), 101-122.
- Hameed A and Ashraf H (2006). Stock Market Volatility and Weak-form Efficiency: Evidence from an Emerging Market. *The Pakistan Development Review*, 45 : 4 Part II (Winter 2006) pp. 1029–1040
- Hamid, Z., Hanif, C., Malook, S., Wasimullah (2014). Fama and French three factor model: Empirical evidence from financial market of Pakistan. *African Journal of Business Management*, 6(8), 2945-2950
- Hamza, M. (2014). The relationship between informational content of cash flows statement and stock returns from accounting perspective of IAS (7)(an empirical study). *European journal of accounting auditing and finance research*, 2(10), 67-84
- Harford, J. (1999). Corporate cash reserves and acquisitions. *Journal of Finance*, 54, 1969–1997.
- Hariono H S & Sugeng P. (2012). Analysis of the effect of total cash flow, cash flow components, accounting earnings on stock returns.
- Harris, R.D.F. and Tzavalis, E. (1999), Inference for Unit Roots in Dynamic Panels where the Time Dimension is Fixed, *Journal of Econometrics*, 91, 201%226.
- Hastuti, Cut & Arfan, Muhammad & Diantimala, Yossi. (2018). The Influence of Free Cash Flow and Operating Cash Flow on Earnings Management at Manufacturing Firms Listed in the Indonesian Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*. 8. 10.6007/IJARBSS/v8-i9/4686.
- Hausman, J.A., (1978): “Specification Tests in Econometrics”, *Econometrica*, 46, 1251-1272
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of accounting and economics*, 7(1–3), 85-107.
- Healy, P.M. and Wahlen, J.M.,(1999). ‘A review of the discretionary accruals literature and its implications for standard setting.’ *Accounting Horizons* Vol.13, No. 4, pp. 365–384
- Hirshleifer, D., Hou, K. and Teoh, S. (2009). Accruals, cash flows, and aggregate stock returns. *Journal of Financial Economics*, 91(3): 389-406.
- Hong, Harrison & Sraer, David. (2016). Speculative Betas. *The Journal of Finance*. 71. 10.1111/jofi.12431.

- Horowitz, Joel & Loughran, Tim & Savin, N.E.. (2010). The disappearing size effect. *Research in Economics*. 54. 83-100. 10.1006/reec.1999.0207.
- Hossain, M., (2008), "The extent of disclosure in annual reports of banking companies: the case of India", *European Journal of Scientific Research*, Vol.23 No.4
- Hou, Kewei, G.Andrew Karolyi, and Bong-Chan Kho. (2011). "What Factors Drive Global Stock Returns?" *Review of Financial Studies* 24 (8), 2527–2574.
- Hsiao, C.(2007). *Panel Data Analysis - Advantages and Challenges*. TEST. Vol. 16, pp. 1-22.
- Hsiao, C., (1986) "*Analysis of Panel Data*, Econometric Society monographs No. 11, New York: Cambridge University Press
- Hsiao, C.. (2014). *Analysis of panel data*: Third edition. 10.1017/CBO9781139839327.
- Hughes, John and Sharrock, Wes (2016), *The Philosophy of Social Research*, 3rd edition, Pearson: Essex.
- Hunt. A, Moyer S. E , Shevlin T, (1995), *Earnings Volatility, Discretionary Accruals And Equity Value*, Working paper, University of Washington
- Husman, J., Duggan, M. A. and Lee, J. (2012). Lens, W. ed. Can people differentiate between global connectedness and situative connectedness?. *The Future Motivates the Present, Symposium conducted at the meeting of the 1st International Conference on Time Perspective. Coimbra, Portugal September 2012_*
- Husman. R, (2012), Stock prices and exchange rates dynamics: Evidence from emerging markets. *African Journal of Business Management* 6: 4728–33
- Ibrahim, A.A., (2012), *Disclosure in Annual Reports for Sudanese Islamic Banks: According to IFSB's Standard*" No.4, BA thesis, SMS, University of Khartoum.
- Idris, Ibrahim & Bala, Hussaini. (2015). Firms' Specific Characteristics and Stock Market Returns (Evidence from Listed Food and beverages Firms in Nigeria). *Research Journal of Finance and Accounting*. 6.
- Im, K.S. and Pesaran, M.H. (2003), *On the Panel Unit Root Tests Using Nonlinear Instrumental Variables*, Mimeo, University of Southern California.
- Jabbari, H, Sadeghi, Z & Askari, S.A (2013). Cash Flow, Earning Opacity and Its Impact on Stock Price Crash Risk in Tehran Stock Exchange, *International Journal of Academic Research in Accounting, Finance and Management Sciences*. Vol.3, No.4, October, 138-145.

- Jaeni J. (2014). Analysis Of The Effect Of Accounting Earnings And Operating Cash Flow To Stock Return Manufacturing Companies Listed On Stock Exchanges In Indonesia, *Edisi Pertama* Vol 1 No 1 (2012): Vol. 1 No. 1
- Jaggi, B., & Gul, A. (2000), "Evidence of Accrual Managerial: A Test of the Free Cash Flow and Debt Monitoring Hypothesis", Working Paper, www.ssrn.com.
- Jamal, Dabash, Mahmoud, & Amira. (2015). *The Impact of Cash Flows on Financial Decision Making*. Master Thesis, College of Graduate Studies, An-Najah University, Nablus, Palestine.
- Jarque, C., Bera, A., (1987). A test for normality of observations and regression residuals. *International Statistical Review* 55, 163–172
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 6(2): 323-339.
- Jensen, M., and Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360
- Jensen, M.C. (1987), *The Free Cash Flow Theory of Takeovers: A Financial Perspective on Mergers and Acquisitions and the Economy*. "The Merger Boom", Proceedings of a Conference Sponsored by Federal Reserve Bank of Boston. p102-143
- Jensen, Michael C.(1986). "Agency Costs of Free Cash Flow, Corporate Finance and Takeovers." *American Economic Review*, vol. 76, no. 2, pp. 323-29
- Jeter, D. C. (2005). Using the Statement of Cash Flows. *Commercial Lending Review*, Vol. 20, Issue 4, July- August, 3-10.
- Jiang F, Kim KA, Nofsinger JR, Zhu B. (2018). "Product market competition and corporate investment: evidence from China". *Journal of Corporate Finance*. 35: 19-210. doi: 10.1016/J.Jcorpfin.2015.09.004.
- Jiang W, Lee P, Anandarajan A (2008) The association between corporate governance and earnings quality: Further evidence using the GOV-Score. *Advances in Accounting* 24: 191-201
- Jintaviwatwong,B. & Suntraruk, P. (2012). *The informativeness of earnings ad operating cash flows : empirical evidence from the stock exchange of Thailand*. Graduate, Master of Science in Financial Economics Martin De Tours School of Management and Economics, Assumption University
- Jogiyanto, H.M. (1998). *Portfolio theory and securities analysis*. UPP AMP YKPN, Yogyakarta.
- Jogiyanto, H.M. (2015) *Partial Least Square: Alternative Structural. Equation Modeling (SEM) dalam Penelitian Bisnis*. Yogyakarta: penerbit Andi.

- Johnson, M. C., & Meckling, W. F. (1976), Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305–360
- Jones, T.: (1991), 'Ethical Decision Making by Individuals in Organizations: An Issue-Contingent Model', *Academy of Management Review* 16(2), 366-395.
- Jonker, J., & Pennink, B. J. W. (2010). *Essence of research methodology: A concise guide for master and phd students in management science*. Heidelberg: Springer.
- Jose, D. (2008). *Behaviour Finance, Technical Analysis Defined and their Relationships*. Montreal: Montreal CFA
- Joshua, K.M., and Njeru, A., (2016) Determinants of Discretionary accruals Practice among Non-Listed Firms in the Motor Industry in Kenya, *International Journal of Science and Research* 5(9), pp. 623-633
- Joshua, K.M., and Njeru, A., (2016) Determinants of Earnings Management Practice among Non-Listed Firms in the Motor Industry in Kenya, *International Journal of Science and Research* Vol. 5, No.9, pp. 623-633.
- Judge, George G., Griffiths, William E., Hill, Robin C., Lutkepohl, Helmut and Lee, T.C., (1985), *The Theory and Practice of Econometrics*, New York: Wiley.
- Julio, B., and Yook, Y. (2016). *Discretionary accruals and Corporate Investment Decisions, Finance and Economics Discussion Series*, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, Washington, D.C.
- Kargin, M. & Aktas, R. (2011). Reported Cash Flow Statement and Analysis According to Turkish Accounting Standards. (Cash Flow Statement that was Reported According to Turkish Accounting Standards and its Analysis). *The Journal of Accounting and Finance*, October (October), 1-24.
- Kariuki, S. N., Namusonge, G. S., & Orwa, G.O. (2018). Determinants of Corporate Cash Holding: Evidence from Private Manufacturing Firms in Kenya. *International Journal of Advanced Research in Management and Social Sciences*. *International Journal of Advanced Research in* ISSN: 2278-6236 *Management and Social Sciences* Vol. 4 No. 6, pp15-33
- Kasmiati, M., & Santosa, P. W. (2019). The effect of earning information, cash flow components, and financing decision on stock return: empirical evidence on Indonesia stock exchange. *Journal of Economics, Business and Accountancy Ventura*, 22(2).
- Kassem, R. (2012). Discretionary accruals and Financial Reporting Fraud: Can External Auditors Spot the Difference, *American Journal of Business and Management*, Vol.1, No. 1, pp. 30-33.
- Kemboi, K. (2010). How listed Firms Finance their Investment in the Capital Market, *Unpublished MBA Project*, University of Nairobi

- Keown A. J., Martin J D. & Titman S (2011) *Financial Management Principles and Applications Financial Management: Principles & Applications*, Eleventh Edition.
- Kew, J., & Watson, A. (2011). *Financial Accounting an Introduction*, 2nd edition, Publish by Oxford University press, Oxford.
- Kew, J., Mettler C., Walker T. and Watson A. (2011). *Accounting an Introduction (2nd edition)*. Published by Oxford University Press.
- Khanji, I. M., & Siam, A. Z. (2015). The effect of cash Flow on share price of the Jordanian commercial Banks listed in Amman stock of exchange, *International Journal Economics and Finance*, 7(5), 109-115.
- Kheirandish, M. R., & Qeisari, F. (2014). Investigate the relationship between stock returns and operating cash flow and accounting net income in firms listed in Tehran stock exchange, *Asian Journal of Research in Banking and Finance*, 4(2), 86-100
- Khodamipour, A. and Poorehmad, R. (2010). Investigating the ability of financial variables to predict operational cash flows, taking into account specific time lags. *Journal of Financial Accounting Research*, Second Year, 3(5): 10.
- Kim O. Verrecchia R. E. (1991), Trading volume and price reactions to public announcements \, *Journal of Accounting Research*, vol.29, No2, pp 302 – 321
- Kipasha, E.F, (2013), “Impact of Size and Age on Firm Performance: Evidences from Microfinance Institutions in Tanzania”, *Research Journal of Finance and Accounting*, Vol.4, No.5, 105-116
- Koirala, et al. (2014) *Management Accounting*. 3rd Edition, Buddha Academic Publishers and Distributors Pvt, Kathmandu.
- Kombo, D. & Tromp, L. (2009). *Proposal and Thesis Writing; An Introduction*. Pauline Publications Africa, Nairobi.
- Kousenidis, D. V. (2006). A Free Cash Flow Version of the Cash Flow Statement: A Note. *Managerial Finance*. Vol.32, No.8, 645-653,
- Kramer, B. M. & Johnson, C.W. (2009). *Financial Statements Demystified*. New York: Mc Graw Hill.
- Kroes, J.R., & Manikas, A.S. (2014). Cash flow management and manufacturing firm financial performance: A longitudinal perspective. *International Journal of Production Economics*, 148, 37-50.
- Krull L.K. (2004). “Permanently Reinvested Foreign Earnings, Taxes, and Discretionary accruals”. *The Accounting Review*, 79 (3), pp.745–767.
- Kuwornu, J. K. (2018). Effect of macroeconomic variables on the Ghanaian stock market returns: A Co-integration analysis. *Agris on-line Papers in Economics and Informatics*. 4(2), 1-12.

- Laeven L, L Ratnovski and H Tong (2014), “*Bank Size and Systemic Risk*”, IMF SDN 14/04
- Laeven, L., L. Ratnovski, and H. Tong, (2014), “*Bank size and systemic risk: some international evidence,*” International Monetary Fund. Mimeo.
- Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny. (1994). “Contrarian Investment, Extrapolation, and Risk.” *The Journal of Finance* 49 (5), 1541–78.
- Lan, Z. J. (2012). The Cash Flow Statement: Tracing the Sources and Uses of Cash. *AAIJ Journal*, 34(7), 11–15.
- Lawzi, G. (2013). “Audit quality and the pricing of discretionary accrual”. *Auditing*, 22, 109-126.
- Lee, Min-Dong. (2008). A Review of the Theories of Corporate Social Responsibility: Its Evolutionary Path and the Road Ahead. *International Journal of Management Reviews*. 10. 53 - 73. 10.1111/j.1468-2370.2007.00226.x.
- Legiman, FM, Tommy, P, & Untu, V (2015), 'Factors influencing stock returns in agro-industry companies listed on the Indonesia Stock Exchange for the period 2009-2012', *EMBA Journal: Journal of Economic Research, Management, Business and Accounting*, vol. 3, no. 3, pp. 382-392
- Levin, A., Lin, C.F., and Chu., C.S.J. (2002), nUnit Root Test in Panel Data: Asymptotic and Finite Sample Properties, *Journal of Econometrics*, 108, 1-24.
- Lewellen, Jonathan & Lewellen, Katharina. (2016). Investment and Cash Flow: New Evidence. *Journal of Financial and Quantitative Analysis*. 51. 1135-1164.
- Lewis, S. (2015). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. *Health promotion practice*. 16. 10.1177/1524839915580941.
- Li, Q., J. Yang, C. Hsiao, and Y. J. Chang, (2014), The relationship between stock returns and volatility in international stock markets, *Journal of Empirical Finance* 12, 650–665
- Liang, F. and Pathak, S. (2016). Financial Health & Corporate Performance of Listed Manufacturing Companies in South Korea & Taiwan: A Comparative Study of the Two Asian Tigers. *Asian Journal of Business and Management*. 4, 2 (Apr. 2016).
- Libby, R, Libby P.A & Short D.G. (2014). *Financial Accounting*, 8th Global Edition. Berkshire: McGraw Hill.
- Lim, Michael Mah-Hui. (2009). “Globalization and Banking Crises: From Tokyo to Manila”. In *Asian Alternatives for a Sustainable World: Trans-border Engagements in Knowledge Formation*, pp.10-16. Bangkok. Nippon Foundation.

- Lin, J.C. and Chang, H. (2011), "The role of technology readiness in self-service technology acceptance", *Managing Service Quality: An International Journal*, Vol. 21 No. 4, pp. 424-444.
- Lintner, J. (1965) The Valuation of Risk Assets and Selection of Risky Investments in Stock Portfolio and Capital Budgets. *Review of Economics and Statistics* 47: Feb., 13–47.
- Liu, X., & Wang, H. (2015). Why do Firms Repurchase Shares? Evidence from Actual Share Repurchases. *Journal of Finance and Economics*, 3(2), 22–39.
- Livnat, J & Zarowin, P (1990), 'The incremental information content of cash-flow components', *Journal of Accounting and Economics*, vol. 13, no. 1, pp. 25-46
- Louis H., (2003), « Discretionary accruals and the market performance of acquiring firms », *Journal of Financial Economics*, 74, pp121-148
- Luo, Mei. (2008). Unusual operating cash flows and stock returns. *Journal of Accounting and Public Policy*. 27. 420-429.
- Maham, K., Ali Asghar, F. Z., & Javad, H. (2008). Free cash flow. *Knowledge and Research on Accounting*, (13), 30-37.
- Maio, Paulo F. and Xu, Danielle (2020)., Cash-Flow or Return Predictability at Long Horizons? The Case of Earnings Yield *Journal of Empirical Finance*, *Forthcoming*, Available at SSRN: <https://ssrn.com/abstract=2170079> or <http://dx.doi.org/10.2139/ssrn.2170079>
- Majumdar S. K., (2017) “The Impact of Size and Age on Firm-Level Performance: Some Evidence from India”, *Review of Industrial Organization* 12: 231–241
- Man, C.K., Wong, B. (2013). Corporate governance and earnings management: A survey of literature. *Journal of Applied Business Research*, 29(2), 391-418.
- Markowitz H.M. (1952), “Portfolio Selection,” *Journal of Finance*, 7, No. 1, March 77-91.
- Marsh HW, Wen Z, Hau KT, Little TD, Bovaird JA, Widaman KF. Unconstrained structural equation models of latent interactions: Contrasting residual- and mean-centered approaches. *Structural Equation Modeling*. (2007);14(4):570–580.
- Martani, D., Khairurizka, R. (2009). The effect of financial ratios, firm size, and cash flow from operating information in the interim report to the stock return. *Chinese Business Review*. 8(6), 44-55.
- Maryyam, Anwaar. (2016). Impact of Firms Performance on Stok Returns (Evidence from Listed Companies of FTSE- 100 Index London, UK). *Global Journal of Management and Bussiness Research*

- McLaney, E. & Atrill, P. (2014). *Accounting and Finance: An Introduction*. 7th Edition. UK: FT Publishing International.
- Mehrani, H., & Bagheri, L., (2009). Corporate payout policy. *Foundations and Trends in Finance*, 3(2-3), 95-287
- Mehrani, S., & Bagheri, B. (2009). The survey of the effect of free cash flow and institutional shareholders on discretionary accruals of listed companies in Tehran Stock Exchange. *Accounting Research*, 1(2), 50-71
- Michael, E, Scholz, S and Smith, K (2010). How Do Restatements Begin? Evidence of Discretionary accruals Preceding Restated Financial Reports, *Journal of Business Finance & Accounting*, 37 (3-4), pp. 332-355
- Miles A., (2010). Risk factors of business models: *Understanding the five forces of entrepreneurial risk and causes of business failure*, Boca Raton Press, USA
- Ming-Feng Hsu & Shiow-Ying Wen, (2015). "The Roles of Institutional Investors and Insiders in Earnings Management around Initial Public Offering Firms in Taiwan," *International Journal of Economics and Financial Issues*, *Econ journals*, vol. 5(2), pp.340-353
- Mironov, M. (2013). Taxes, theft, and firm performance. *The Journal of Finance*, 68(4), 1441–1472
- Mkansi, M., & Acheampong, E. A. (2012). *Research philosophy debates and classifications: Students' dilemma*.
- Mong'o, M. G. (2010). The Relationship between Cash Flows and Profitability of Commercial Banks in Kenya, MBAD Research Project UON.
- MoradzadeFard, M. Rezapoor, N., & Frzani, H. (2010). Evaluating the role of commitment items management in shares liquid of accepted companies in Tehran exchange market. *Journal of Financial Accounting Researches*, 2, 101 – 116.
- Moreira, José A. C., & Pope, Peter F. (2007). *Discretionary accruals to avoid losses: a cost of debt explanation*. Working paper. University of Oporto (Portugal) and Lancaster University Management School (UK)
- Moss, Supawadee Sukeecheep, (2016). "The Impact of Corporate Governance and Discretionary accruals Practices on Cost of Equity Capital: Evidence from Thai Listed Companies."ACRN Oxford *Journal of Finance and Risk Perspectives*, 9 5, No.1, pp.160-182
- Mossin, J. (1966) Equilibrium in a Capital Asset Pricing Market. *Econometrica* 34: 768–83
- Munakami, S.P. (2002) *Management Accounting*. Buddha Academic Publisher and Distributors, Kathmandu

- Munir, Q., & Kok, S. C. (2015). Purchasing Power Parity of ASEAN-5 Countries Revisited: Heterogeneity, Structural Breaks and Cross-sectional Dependence. *Global Economic Review*, 44(1), 116-149.
- Murakami, J. (2002) Gender and Depression, Explaining the Different Rates of Depression between Men and Women. *Perspectives in Psychology*, 27-37.
- Mutia, Evi. (2012). *Effect of Information on Earnings and Cash Flows on Stock Prices*. *Accounting journal*, 1(1) 12-22
- Myers, J. N., Myers, L. A., & Skinner, D. J. (2017). Earnings momentum and discretionary accruals. *Journal of Accounting, Auditing & Finance*, 22(2), 249-284
- Nairobi Securities Exchange Listing Rules, (2014).
- Nairobi Securities exchange. (2017). Retrieved from <https://www.nse.co.ke/nse/about-nse.html>
- Nell, C., & Zimmermann, S. (2011). *Summary based on chapter 12 of Baltagi: Panel unit root tests*. Department of Economics at University of Vienna
- Craig Nichols, D., & Wahlen, J. M. (2004). How do earnings numbers relate to stock returns? A review of classic accounting research with updated evidence. *Accounting Horizons*, 18(4), 263-286
- Niresh, J. A., & Velampy, T., (2014), "Firm Size and Profitability: A Study of Listed Manufacturing Firms in Sri Lanka", *International Journal of Business and Management*; Vol. 9, No. 4.
- Novikov, A.M. & Novikov, D.A. (2013) "Research Methodology: From Philosophy of Science to Research Design" CRC Press
- Novy-Marx, R. (2013). The other side of value: The gross profitability premium. *Journal of Financial Economics*, 108, 1-28
- NSE (2016). *History of NSE*, Retrieved on 27th June 2020, from www.nse.co.ke
- Nugroho, B. Y., & Eko, P. U. (2011). Board Characteristics and Discretionary accruals, *Journal of Administrative Science and Organization* 18(1), pp.1-10
- Nuryaman (2013). The Influence of Earnings Management on Stock Return and the Role of Audit Quality as a Moderating Variable, *International Journal of Trade, Economics and Finance*, 4 (2): 73-78
- Nwakaego, O. N., & Kabiru, A. M. (2015). The need to incorporate entrepreneurship education into chemistry curriculum for colleges of education in Nigeria. *Journal Of Educational Policy And Entrepreneurial Research*, 2(5), 84-90

- Nwanyanwu, L. (2015). Cashflow and organisational performance in Nigeria: Hospitality and Print Media Industries Perspectives. *European journal of Business, Economics and Accounting*, 3. 66 - 72.
- Nyamache T, Nyambura R, Mishra PY (2013). Impact of business cycles on industry sectors: A structural economic change in Kenya. *International Journal of Research in Management*, 3(1.5)
- Ohlson, J. (1995), 'Earnings, Book Values and Dividends in Equity Valuation', *Contemporary Accounting Research*, Spring, Vol. 11, No. 2, pp661-687.
- Omag, A. (2016). Cash Flows from Financing Information: Evidence from the Automotive Industry. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. 6.
- Omondi, M. M., & Muturi, W. (2018). Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya. *Research Journal of Finance and Accounting*, 4(15).
- Opler, Tim, Lee Pinkowitz, R'ene Stulz, and Rohan Williamson, (1999), The determinants and implications of cash holdings, *Journal of Financial Economics* 52, 3–46.
- Orhan, A & Basar, A.B. (2015). Cash Flow Profiles and Analysis in Businesses: An Application on BIST 100 Businesses. *Journal of Accounting and Tax Applications*, 8 (2), 107-122.
- Pallant, J., (2010). *SPSS survival manual A step by step guide to data analysis using the SPSS program*. 4th Edition, McGraw Hill, New York
- Papadogonas, Theodore. (2010). The financial performance of large and small firms: evidence from Greece. *International Journal of Financial Services Management*. 2. 10.1504/IJFSM.2007.011668.
- Paradiba, L., & Nainggolan, K. (2015) Effect of Net Operating Income on Stock Prices in Food and Beverages Companies Listed on the IDX. *Journal of Accounting and Business Research*, 15(1), 113–124
- Park, D., & Park, N. (2014). Impact of Demographic Factors on Investment Decision of Investors in Rajasthan. *Journal of Arts, Science & Commerce*, 3(2, 3), 81 - 92.
- Patton, M. (2002) *Qualitative Research and Evaluation Methods*, 3rd edn. Thousand Oaks, CA: Sage.
- Pesaran, H. (2007). A Simple Panel Unit Root Test in the Presence of Cross Section Dependence. *Journal of Applied Econometrics*. 22. 265-312. 10.2139/ssrn.457280.
- Pinto, J., Henry, E., Robinson, T. & Stowe, J. (2013). *Equity Valuation*. (2nd Ed.). John Wiley and sons

- Polit, D.F. and Beck, C.T. (2003) *Nursing research Principles and Methods*. 7th Edition, Lippincott Williams and Wilkins, Philadelphia.
- Pornsit, J., Gary, A. M., Soon Suk, Y. & Young S. K. (2008), "Is Discretionary accruals Opportunistic or Beneficial? An Agency Theory Perspective", *International Review of Financial Analysis*, 17, 622–634.
- Powers M. and Belverd E. Needles (2011), *Financial Accounting Principles 11th edition*. Published by Cengage Learning
- Purnamasari, D. (2015). The Effect of Changes in Return on Assets, Return on Equity, and Economic Value Added to the Stock Price Changes and its Impact on Earnings Per Share. *Research Journal of Finance and Accounting*, 6(6), 80-90.
- Purnamasari, K., Herdjiono, I., & S. etiawan, E. (2015). Financial Risk, Growth, Earnings and Stock returns Relationship: The Case of Indonesia. *International Review of Business Research Papers*, Vol.8, No 7, pp 79-93.
- Qiang, Christine Zhenwei, and Georgiana Pop. (2000). "State-Owned Enterprises and COVID-19." *Private Sector Development Blog*, July 28, 2020. World Bank, Washington, DC. <https://blogs.worldbank.org/psd/state-owned-enterprises-and-covid-19>
- Rahimipour, A.. (2017). Investigating the validity of signaling theory in the Tehran stock exchange: Using real earnings management, accrual-based earnings management and firm growth. *International Journal of Economic Perspectives*. 11. 925-936.
- Rahman, M., Moniruzzaman, M. and Sharif, J., (2013) "Techniques, Motives and Controls of Discretionary accruals", *International Journal of Information Technology and Business Management*, Vol. 1, No.1; pp. 22- 34.
- Rahmawati, F. I., & Handayani, S. R. (2017). The Influence Of Good Corporate Governance Practice On The Stock Price (Study on Company of LQ45 Index in Indonesia Stock Exchange during 2012-2016). *Administrasi Bisnis*, 50 No. 6(6), 164–173.
- Rees, W. (1997), 'The Impact of Dividends, Debt and Investment on Valuation Models', *Journal of Business Finance and Accounting*, Vol. 24, No. 7&8, pp111-1140.
- Reyna, T- O. (2007) *Panel Data Analysis Fixed and Random Effects Using Stata* (v. 4.2). Data & Statistical Services, Princeton University.
- Rieke. P. (2020). Analysis of Performance Company: Based on Value Added and Financial Statement. *Jurnal ASET (Akuntansi Riset)*. 12. 416-429. 10.17509/jaset.v12i2.28340.
- Ross S. A., (1977). "The Determination of Financial Structure: The Incentive-Signalling Approach," *Bell Journal of Economics*, The RAND Corporation, 8(1), pp. 23-40, Spring.

- Ross, S. Wester, Field, R. and Jordan, B. (2007): *Fundamental of Corporate Finance*. New York: Pearson – Patience.
- Ross, S., R. Westerfield and B. Jordan, (2010), *Essentials of Corporate Finance*, 7th edition, New York, McGraw-Hill Irwin.
- Roychowdhury, S., (2006). Discretionary accruals through real information manipulation, *Journal of Accounting and Economics*, 42, pp. 335–370.
- Rudra, Titas, and Bhattacharjee, D., (2012). Does IFRs Influence Earnings Management, Evidence from India *Journal of Management Research*, 4(1): E7
- Ruiz. C. V, (2016). *Literature review of discretionary accruals: Who, why, when, how and what for*. Finnish Business Review, Published online: March 11, 2016 <http://urn.fi/urn:nbn:fi:jamk-issn-2341-9938-12> Finnish Business Review
- Saeedi, Mohsen & Abessi, Ozeair & Sharifi, Forough & Meraji, Seyed Hamed. (2009). Development of groundwater quality index. *Environmental monitoring and assessment* 163. 327-35.
- Saghafi, A. and Kordestani, G. (2004). Exploring and explaining the relationship between profit and market reaction to cash flow changes. *Tehran Accounting and Auditing Survey*, 37(1): 51-72.
- Saliha, T. Abdessatar A. (2018), The determinants of financial performance: An empirical test using the simultaneous equations method, *Economics and Finance Review*, 10 (1) pp. 1-19
- Santosa, PW (2011), 'Longterm Performance Trends economics, vol. 37, no. 19, pp. 2179-2189. Analysis and Managing Expectation for Active Fundamentals Value1 (Case Study: PT Indocement Tunggall of financial management (13 ed.), Pearson Prakarsa, Tbk)', *Journal of Accounting and Finance, Education*. vol. 12, no. 2, pp. 94-101.
- Santoso, P. W. (2018). Financial Performance, Exchange Rate and Stock Return: Evidence from Manufacturing Sector, *Journal of Technology Management*, 18(3), 205-217.
- Sartini, L. P. N., & Purbawangsa, I. B. A. (2015). The effect of investment decisions, dividend policies, and funding decisions on the value of manufacturing companies on the Indonesian Stock Exchange a. Matrix: *Journal of Management, Business Strategy and Entrepreneurship*, 8(2),81–90
- Saunders, M., Lewis, P. and Thornhill, A. (2016) *Research Methods for Business Students*. 7th Edition, Pearson, Harlow
- Sayari, N., & Simga-Mugan, F. N. C. (2013). Cash Flow Statement as an Evidence for Financial Distress. *Universal Journal of Accounting and Finance*, 1(3), 95–103.

- Sayari, S., Omri, A., Finet, A., & Mraïhi, F. (2013). The impact of earning management on stock returns: The case of Tunisian firms. *Global Journal of Management and Business Research Finance*, 13(10), 51-66.
- Schipper, K. (1989). Commentary on Discretionary accruals. *Accounting Horizons*, Vol. 3, No. 4, pp. 91-102.
- Schwert, G.. (2000). Hostility in Takeovers: In the Eyes of the Beholder? *Journal of Finance*. 55. 2599-2640.
- Scott M. (2015). *Empirical Asset Pricing: The Cross Section of Stock Returns*. Hoboken: Wiley and Sons
- Scott, W.R. (2009), *Financial Accounting Theory*. 5th ed. Toronto, Canada: Prentice Hall Canada Inc
- Sharifi Mobarakeh, R. Dastgir, M, (2011). The Relationship between Cash Flows and Stock Return, *Hesabras Journal*, 5(2)
- Sharpe, W. F. (1964) Capital Asset Pricing Theory of Market Equilibrium under Conditions if Risk. *Journal of Finance* 19: 425–442
- Shehu, & Ahmad. (2013). Firm Characteristics and Financial Reporting Quality of Listed Manufacturing Firms in Nigeria. *International Journal of Accounting, Banking and Management*, 1(6), 47-63
- Shi, L., Zhang, H., & Guo, J. (2014). Analyst cash flow forecasts and pricing of accruals. *Advances in Accounting*, 30(1), 95-105.
- Shuto, A. (2017). Executive compensation and discretionary accruals: Empirical evidence from Japan. *Journal of International Accounting, Auditing and Taxation*, 16(1), 1-26
- Siddharth Mohapatra (2011), "Earnings Manipulation and Relative Deprivation – A Meaning-Making Endeavour"
- Sinan Suleiman Abbadi, (2020). "The Moderating Role of Earnings Management on the Relationship between Cash Flow Activities and Stock Returns in the Jordanian Manufacturing Firms," *International Journal of Economics & Business Administration (IJEBA)*, vol. 0(4), pages 1011-1022.
- Sinan, M. (2016). *Behavioural Finance and Investor Types: Managing Behaviour to Make Better Investment Decisions*. New York, US: John Wiley & Sons
- Sinclair, R.A. & Auret, Christo (2006). Book-to-market ratio and returns on the JSE. *Investment Analysts Journal*. 63. 31-38. 10.1080/10293523.2006.11082476.
- Singh, A. K., Aggarwal, A., & Anand, A. K. (2017). Corporate Governance Mechanisms And Discretionary accruals In India: A Study Of Bse-Listed Companies. *Delhi Business Review*, 18(1), 43–54.

- Singh, A. K., Aggarwal, A., & Anand, A. K. (2017). The Impact of Corporate Governance Mechanisms on Earnings Management: A Case of Indian Stock Exchange Listed Companies. *Asia-Pacific Journal of Management Research and Innovation*, 12(3-4), 304-316.
- Sinthupundaja, Janthorn & Chiadamrong, Navee. (2015). Investigation of Thai Manufacturing Public Firms' Characteristics and Financial Strategies towards Financial Performance's Improvement. *Journal of Economics, Business and Management*. 3. 331-337. 10.7763/JOEBM.2015.V3.205.
- Soheil and Sanusib, (2015). Discretionary accruals and Ownership Structure, *Procedia Economics and Finance* vol. 1, pp. 618 – 624.
- Solechan, A. (2007). Effect of earning, profit, ios, beta, size and debt management on return of stock in go public companies in IDX. *Journal of Accounting and Auditing*, 6(1), 1-18.
- Stepanyan, G. (2012). Revisiting Firm Life Cycle Theory for New Directions in Finance. *Electronic Journal*. 10.2139
- Stierwald, A., (2010), “*Determinants of firm profitability- the effect of productivity and its persistence*”, Melbourne Institute for Applied Economic and Social Research. Working Paper No. 3/10.
- Subramanyam K. R & Wild, J.J. (2014). *Financial Statement Analysis*. 11th Edition. New York: McGraw Hill.
- Subramanyam K. R., (1996), The pricing of discretionary accruals, *Journal of Accounting and Economics*, vol.22, Issues 1-3, pp 249 – 281.
- Subramanyam, K.R. (2014). *Financial Statement Analysis. Eleventh Edition*. Singapore: Mc Graw Hill
- Taani, K. & Banykhaled, M. H. H. (2011). The Effect of Financial Ratios, Firm Size and Cash Flows from Operating Activities on Earnings Per Share: (An Applied Study: On Jordanian Industrial Sector), *International Journal Of Social Sciences And Humanity Studies* ,Vol. 3, No 1, ISSN: 1309-8063 (Online), 197-205
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). New York Allyn and Bacon.
- Tahmoorespour, R., Ali-Abbar, M., & Randjbaran, E. (2015). The Impact of Capital Structure on Stock Returns: International Evidence. *Hyperion Economic Journal*, 1(3), 56-78
- Taillard, M. (2012). *Corporate Finance for Dummies*. New Jersey: John Wiley and Sons.
- Tan, C.W., Robinson, T.R. & Schilit, H. (2014). *Asian Financial Statement Analysis: Detecting Financial Irregularities*. New Jersey: John Wiley & Sons.

- Tan, P.P., Galagedera, D.U., & Maharaj, E.A. (2012). A wavelet based investigation of long memory in stock returns. *Physica A: Statistical Mechanics and its Applications*, 391(7), 2330-2341.
- Tariverdi, A., Venkiteswaran, V. K., Martinsen, Ø. G., Elle, O. J., Tørresen, J., and Misra, S. (2014). *Dynamic modeling of soft continuum manipulators using lie group variational integration*. Plos One 15, e0236121. doi:10.1371/journal.pone.0236121
- Tariverdi, Y. & Teimoory, M. (2013). The relationship between cash flows from investing and financing information in five-section and four-section models of statement of cash flows with the quality of disclosure. *International Research Journal of Applied and Basic Sciences*, 6(8), 1098-1104.
- Tease, W. (1993). *The Stock Market and Investment*. OECD Economic Studies No. 20 (Spring): 41.
- Tenai, J.K, Bitok K.J, Guyo S.A & Kipkoskey B.J., (2011). *Determinants of initial public offer pricing in Kenya*. Annual conference on innovations in Business Management, London
- Tian L., Han, L. & Zhang, S. (2015). Business Life Cycle and Capital Structure: Evidence from Chinese Manufacturing Firms. *China & World Economy*, Vol. 23, No. 2, 22-39. Doi: 10.1111/cwe.12105
- Titman, S, Keown, A.J & Martin, J.D. (2011). *Financial Management: Principles and Applications*. Eleventh Edition. USA: Pearson International Edition.
- Tracy, T.C.& Weltok, J.G. (2014). *Accounting All-in-One for Dummies*. New Jersey: John Wiley and Sons
- Trisnawati, C.Y. & Srianta, Ignatius. (2013). Effect of corn varieties on the characteristics of soycorn milk. *International Food Research Journal*. 20. 1187-1190.
- Turcas, M (2011). *The cash flow – Instrument for the company's analysis and forecast*. Bucharest, Academy of economic studies,
- Umutlu, M & Akdeniz, L & Salih, A. (2015). The Degree of Financial Liberalization and Aggregated Stock-return Volatility in Emerging Markets. *Journal of Banking & Finance*. 34. 509-521. 10.1016/j.jbankfin.2009.08.010.
- Utomo, S.D. & Pamungkas, Imang & Machmuddah, Zaky. (2018). The moderating effects of managerial ownership on accounting conservatism and quality of earnings. *Academy of Accounting and Financial Studies Journal*. 22.
- Uwonda,G. and Okello, N. (2013). Cash flow management utilization by Small Medium Enterprises (SMEs) in Northern Uganda. *Merit Research Journal of Accounting, Auditing, Economics and Finance* , 1(5), 67-80.
- Van Horne, J., & Wachowicz, J. M. (2012). *Fundamentals of Financial Management*. New York: McGraw-Hill

- Vause, B. (2014). *Guide to Analysing Companies*. Sixth Edition, London: The Economist
- Verbruggen, S., Christaens, J. and Milis, K. (2008), 'Discretionary accruals: a literature review,' Hub Research paper 14, 1—27.
- Vernon J. Richardson, (2000), "Information Asymmetry and Earnings Management: Some Evidence", *Review of Quantitative Finance and Accounting*, vol.15, pp. 325±347.
- Vuolteenaho, J. (2012). Numbering the streetscape: Mapping the spatial history of numerical street names in Europe. *Urban History*. 39. 10.1017/S0963926812000442.
- Wali, Kawa & Saleh, Sabhi & Paridon, Kees. (2019). The Causes and Effects of Earnings Management on Stock Prices. *Journal of Economics and Administrative Sciences*. 25. 93-110. 10.33095/jeas.v25i116.1789.
- Wang, C. (2014). Accounting standards harmonization and financial statement comparability: Evidence from transnational information transfer. *Journal of Accounting Research*, 52(4), 955-992.
- Wang, Mo & Beal, Daniel & Chan, David & Newman, Daniel & Vancouver, Jeffrey & Vandenberg, Robert. (2015). *Longitudinal Research: A Panel Discussion on Conceptual Issues, Research Design, and Statistical Techniques*. Work, Aging and Retirement. 3. 1-24. 10.1093/workar/waw033.
- Wanja, S. (2011). The determinants of Cash Holding and their Effect on the Cash Level of Small and Medium Enterprises in Nairobi Kenya, *Unpublished MBA Project*, University of Nairobi
- Watts R., Zimmerman J., (1986), *Positive Accounting Theory*, Prentice-Hall, Inc. Englewood Cliffs.
- Weber, M. (2018). Cash flow duration and the term structure of equity returns. *Journal of Financial Economics*. 128. 10.1016/j.jfineco.2018.03.003.
- Widya T, Wahidahwati D. (2013) Effect of Operating Cash Flow, Investment and Funding and Net Profit on Stock Return. *Journal of Accounting Science and research*. Vol, 1. No. 1.
- Williams, J.R., Haka, S.F., Bettner, M.S. & Carcello, J.V. (2014) *Financial and Managerial Accounting*, 15th Edition. Boston: McGraw Hill
- Wilson, WM (2008). An Empirical Analysis of the Decline in the Information Content of Earnings Following Restatements. *The Accounting Review*, 83(2).
- Wolk, et al (2001). "Signaling, Agency Theory, Accounting Policy Choice". *Accounting and Business Research*. 18(69), pp.47-56
- Wolk, H.I., Tearney, M.G., & Dodd, J.L. (2001). *Accounting theory: A conceptual approach*. Ohio South-Western College Publishing.

- Wooldridge, J. (2002), *Econometric Analysis of Cross Section and Panel Data*, MIT Press. Page
- Xie F., Wei K. C. J., (2005), Earnings management, corporate investments and stock returns », SSRN.com/abstract = 685113.
- Yaping, N. (2016). A different perspective of discretionary accruals. *Canadian Social Science*, Vol. 2, No.4, pp.53-59
- Yocelyn, Azilia, dan Christiawan, Yulius Jogi. (2012). Analysis of the Effect of Changes in Cash and Accounting Profits on Stock Returns in Large Capitalized Companies. *Journal of Accounting and Finance*, Vol. 14, No.2, Hlm. 81-90.
- Yuan H. and Chen, K.C. (2016). Discretionary accruals and capital resource allocation: Evidence from China's accounting-based regulation of rights issues. *The Accounting Review*, 79 pp.645-665.
- Brigham, Eugene & Daves, Philip. (2019). *Intermediate Financial Management 13th Edition*. Thompson Southwestern: USA
- Chaudhury, Mo. (2011). The Financial Crisis and the Behavior of Stock Prices. SSRN Electronic Journal. 10.2139/ssrn.1802826.
- Ndungu J.K., Ochieng D. E., and Kinyua H.W. (2015), The Effect Of General Elections On Stock Returns at The Nairobi Securities Exchange, *European Scientific Journal*, 11(2), pp 435-460
- Outa, E. R. (2011). The Impact of International Financial Reporting Standards (IFRS) Adoption on the Accounting Quality of Listed Companies in Kenya. *International Journal of Accounting and Financial Reporting*, 1(1), 212-241
- Zainal Abidin, Z., Mustaffa Kamal, N. & Jusoff, K. (2012). Board structure and corporate performance in Malaysia. *International Journal of Economics and Finance*, 1(1), 150-164
- Zhen L., Xie H., Xu W., (2005), *Heterogeneous valuation of accruals and trading volume* , Working Paper, National University of Singapore
- Zhou C., Mei J., Guojun W., (2003), *Behavior based manipulation: Theory and prosecution evidence*, Working Paper, New York University
- Zhou, M., & Ee, J. (2012). Development of the Social Emotional Competence Questionnaire (SECQ). *The International Journal of Emotional Education*, 4, 27-42.

Appendix II: Companies Listed At Nairobi Securities Exchange

	BANKING SECTOR		
1.	Barclays Bank of Kenya Limited	Banking Sector	1986
2.	CFC Stanbic of Kenya Holdings Ltd	Banking Sector	1970
3.	Diamond Trust Bank Kenya Limited	Banking Sector	1972
4.	Equity Group Holdings Limited	Banking Sector	2006
5.	Housing Finance Group Limited	Banking Sector	1992
6.	I&M Holdings Limited	Banking Sector	2013
7.	KCB Group Limited	Banking Sector	1989
8.	National Bank of Kenya Limited	Banking Sector	1994
9.	NIC Group PLC	Banking Sector	1971
10.	Standard Chartered Bank Kenya Ltd	Banking Sector	1988
11.	The Co-operative Bank of Kenya Ltd	Banking Sector	2008
	AGRICULTURAL SECTOR		
12.	Eaagads Limited	Agricultural Sector	1972
13.	Kakuzi Limited	Agricultural Sector	1951
14.	Kapchorua Tea Factory Limited	Agricultural Sector	1972
15.	Limuru Tea Kenya Limited	Agricultural Sector	1967
16.	Sasini Limited	Agricultural Sector	1965
17.	Williamson Tea Kenya Limited	Agricultural Sector	1972
18.	Rea Vipingo Plantations Limited	Agricultural Sector	1998
	AUTOMOBILES & ACCESSORIES		
19.	Car and Gen	Automobiles and Accessories	1950
20.	Sameer Africa	Automobiles and Accessories	1994
21.	Marshalls (E.A.) Ltd	Automobiles and Accessories	
	ENERGY & PETROLEUM		
22.	Ken Gen Company Limited	Energy and Petroleum	2006
23.	Kenol Kobil Limited	Energy and Petroleum	1959
24.	Kenya Power & Lighting company Ltd	Energy and Petroleum	1954
25.	Total Kenya Limited	Energy and Petroleum	1988
26.	Umeme Limited	Energy and Petroleum	2012
	INSURANCE		
27.	Britam Holdings Limited	Insurance Sector	2011

28.	CIC Insurance Group Limited	Insurance Sector	2012
29.	Jubilee Holdings Limited	Insurance Sector	1984
30.	Kenya Re insurance Corporation Ltd	Insurance Sector	2006
31.	Liberty Kenya Holdings Limited Pan Africa Insurance Holdings Ltd	Insurance Sector	2007
32.	Sanlam	Insurance Sector	1963
	TELECOMMUNICATION AND TECHNOLOGY		
33.	Safaricom Limited	Telecommunication & Technology	2008
	Real Estate Investment Trust		
34.	Stanlib Fahari I-Reit	Real Estate Investment Trust	2015
	INVESTMENT SECTOR		
35.	Centum Investment Company Ltd	Investment Sector	1977
36.	Home Afrika Limited	Investment Sector	2013
37.	Kurwitu Ventures Limited	Investment Sector	2014
38.	Olympia Capital Holdings Limited	Investment Sector	1974
39.	Trans-Century Limited	Investment Sector	2011
	INVESTMENT SERVICES		
40.	Nairobi Securities Exchange Limited	Investment Services	2014
	MANUFACTURING & ALLIED		
41.	B.O.C Kenya Limited	Manufacturing and Allied	1969
42.	British American Tobacco Kenya Ltd	Manufacturing and Allied	1969
43.	Carbacid Investments Limited	Manufacturing and Allied	1972
44.	East African Breweries limited	Manufacturing and Allied	1972
45.	Eveready East Africa limited	Manufacturing and Allied	2006
46.	Flame Tree Group Holdings Limited	Manufacturing and Allied	2015
47.	Kenya Orchards Limited	Manufacturing and Allied	1959
48.	Mumias Sugar Company Limited	Manufacturing and Allied	2001
49.	Unga Group Limited	Manufacturing and Allied	1971
	COMMERCIAL AND SERVICES		
50.	Atlas African Industries Limited	Commercial and Services	2014
51.	Express Kenya Limited	Commercial and Services	1978
52.	Kenya Airways limited	Commercial and Services	1996
53.	Longhorn Publishers Limited	Commercial and Services	2012

54.	Nairobi Business Ventures Limited	Commercial and Services	2016
55.	National Media Group Limited	Commercial and Services	1973
56.	Standard Group Limited	Commercial and Services	1954
57.	TPS Eastern Africa Limited	Commercial and Services	1997
58.	Uchumi supermarket Limited	Commercial and Services	1992
59.	WPP Scan Group Limited	Commercial and Services	2006
60.	Deacons East Africa PLC	Commercial and Services	2016
61.	Hutchings Biemer Ltd	Commercial and Services	
	CONSTRUCTION & ALLIED		
62.	Athi River Mining Cement Limited	Construction & Allied	1997
63.	Bamburi Cement Limited	Construction & Allied	1951
64.	Crown Paints Kenya Limited	Construction & Allied	1992
65.	E.A. Cables Limited	Construction & Allied	1973
66.	E.A. Portland Cement Company Ltd	Construction & Allied	1972
67.	New Gold Issuer (RP) Limited	Exchange Traded Fund	2017

Source: Nairobi Securities Exchange, 2018

Appendix III: Selection Criterion for Firms

No.	Sector	Total firms	Excluded	Included
1	Agricultural	7	1	6
2	Automobiles & Accessories	3	1	2
3	Banking	11	11	0
4	Commercial & Services	11	5	6
5	Construction & Allied	5	1	4
6	Energy & Petroleum	5	2	3
7	Insurance	7	5	2
8	Investment Sector	5	5	0
9	Investment Services	1	1	0
9	Manufacturing & Allied	9	4	5
10	Telecom & Technology	1	0	1
11	Real Estate Investment Trust	1	1	0
12	Exchange Traded Fund	1	1	0
Total		67	38	29

Appendix IV: Dependent, Moderating Variable Independent Variables

Moderation output

. xtreg sr z_FA z_FS z_ocf z_icf z_fcf z_da, re

Random-effects GLS regression Number of obs = 348
Group variable: id Number of groups = 29

R-sq: within = 0.5985 Obs per group: min = 12
 between = 0.6506 avg = 12.0
 overall = 0.5918 max = 12

Wald chi2(6) = 494.40
corr(u_i, X) = 0 (assumed) Prob > chi2 = 0.0000

sr	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
z_FA	-.1887957	.0665284	-2.84	0.005	-.319189	-.0584024
z_FS	-.4576416	.0765476	-5.98	0.000	-.6076722	-.307611
z_ocf	.6321476	.0787311	8.03	0.000	.4778374	.7864577
z_icf	.1939335	.0668346	2.90	0.004	.06294	.3249269
z_fcf	.7954756	.0795991	9.99	0.000	.6394642	.9514869
z_da	-.2988451	.0746883	-4.00	0.000	-.4452315	-.1524586
_cons	.2320742	.0656353	3.54	0.000	.1034314	.360717

sigma_u	0					
sigma_e	1.2189779					
rho	0 (fraction of variance due to u_i)					

. estimate store re

. xtreg sr z_FA z_FS z_ocf z_icf z_fcf z_da, fe

Fixed-effects (within) regression Number of obs = 348
Group variable: id Number of groups = 29

R-sq: within = 0.6059 Obs per group: min = 12
 between = 0.6215 avg = 12.0
 overall = 0.5603 max = 12

F(6,313) = 80.19
corr(u_i, Xb) = -0.4320 Prob > F = 0.0000

sr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
z_FA	-.5806144	.2987784	-1.94	0.053	-1.168482	.0072536
z_FS	-.6716472	.1102981	-6.09	0.000	-.8886666	-.4546278
z_ocf	.6012969	.0845828	7.11	0.000	.4348742	.7677197
z_icf	.2194917	.0711946	3.08	0.002	.0794111	.3595723
z_fcf	.8125658	.0847153	9.59	0.000	.6458823	.9792492
z_da	-.3879987	.0992817	-3.91	0.000	-.5833425	-.1926549
_cons	.2302406	.0653689	3.52	0.000	.1016227	.3588586

```
sigma_u | .55968333
sigma_e | 1.2189779
rho | .17410721 (fraction of variance due to u_i)
```

```
-----
F test that all u_i=0: F(28, 313) = 1.11 Prob > F = 0.3264
```

```
. estimate store fe
```

```
. hausman fe re
```

```
----- Coefficients -----
      | (b)      (B)      (b-B)  sqrt(diag(V_b-V_B))
      | fe      re      Difference  S.E.
-----+-----
z_FA | -.5806144  -.1887957  -.3918187  .2912774
z_FS | -.6716472  -.4576416  -.2140056  .0794111
z_ocf | .6012969  .6321476  -.0308506  .0309138
z_icf | .2194917  .1939335  .0255582  .0245318
z_fcf | .8125658  .7954756  .0170902  .0289943
z_da | -.3879987  -.2988451  -.0891537  .0654102
-----
```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```
chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
        = 18.73
Prob>chi2 = 0.0046
```

```
Random-effects GLS regression      Number of obs   =   348
Group variable: id                 Number of groups =   29
```

```
R-sq: within = 0.6046              Obs per group: min =   12
      between = 0.6558              avg =   12.0
      overall = 0.5992              max =   12
```

```
Wald chi2(7) = 508.37
corr(u_i, X) = 0 (assumed)         Prob > chi2 = 0.0000
```

```
-----
sr | Coef. Std. Err. z P>|z| [95% Conf. Interval]
-----+-----
z_FA | -.2020039 .0662273 -3.05 0.002 [-.3318071 -.0722007]
z_FS | -.4549301 .0759678 -5.99 0.000 [-.6038242 -.306036]
z_ocf | .6647509 .0792 8.39 0.000 [.5095216 .8199801]
z_icf | .1906606 .0663345 2.87 0.004 [.0606475 .3206738]
z_fcf | .7885337 .0790366 9.98 0.000 [.6336248 .9434425]
z_da | -.251288 .0765003 -3.28 0.001 [-.4012258 -.1013501]
OCF_DA | .1706672 .0680199 2.51 0.012 [.0373507 .3039838]
_cons | .2576439 .0659239 3.91 0.000 [.1284353 .3868525]
-----
```

```
sigma_u | 0
sigma_e | 1.210679
rho | 0 (fraction of variance due to u_i)
```



```

----- Coefficients -----
      | (b)      (B)      (b-B)  sqrt(diag(V_b-V_B))
      | fe      re      Difference  S.E.
-----+-----
z_FA | -.5562147  -.1945714  -.3616433  .2867487
z_FS | -.6368922  -.4202785  -.2166137  .0801419
z_ocf | .6135644  .6544313  -.040867  .0296664
z_icf | .2375819  .2174451  .0201368  .0252297
z_fcf | .7810719  .7601832  .0208886  .0296349
z_da | -.3089851  -.2189464  -.0900387  .0667664
OCF_DA | .1746253  .188471  -.0138457  .0191362
ICF_DA | -.144465  -.1561473  .0116823  .0121673
-----+-----

```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(8) &= (\mathbf{b}-\mathbf{B})'[(\mathbf{V}_b-\mathbf{V}_B)^{-1}](\mathbf{b}-\mathbf{B}) \\ &= 18.24 \\ \text{Prob}>\text{chi2} &= 0.0195 \end{aligned}$$

```

Fixed-effects (within) regression      Number of obs   =   348
Group variable: id                    Number of groups =   29

R-sq:  within = 0.6370                Obs per group:  min =   12
      between = 0.6121                    avg =   12.0
      overall = 0.6101                    max =   12

                                F(9,310)   =   60.44
corr(u_i, Xb) = -0.3246              Prob > F    =   0.0000

```

```

-----+-----
sr |   Coef.  Std. Err.   t  P>|t|  [95% Conf. Interval]
-----+-----
z_FA | -.4076059  .2913694  -1.40  0.163  -.9809176  .1657059
z_FS | -.6487693  .1083456  -5.99  0.000  -.8619551  -.4355836
z_ocf | .6180748  .0821781  7.52  0.000  .4563774  .7797722
z_icf | .2454745  .0694781  3.53  0.000  .1087662  .3821828
z_fcf | .7031884  .0851841  8.25  0.000  .5355763  .8708005
z_da | -.2977437  .099535  -2.99  0.003  -.4935934  -.101894
OCF_DA | .2412883  .0711894  3.39  0.001  .1012127  .3813638
ICF_DA | -.1354633  .0521471  -2.60  0.010  -.2380703  -.0328562
FCF_DA | -.1382551  .0379569  -3.64  0.000  -.2129409  -.0635694
_cons | .267133  .0640232  4.17  0.000  .1411581  .3931079
-----+-----
sigma_u | .44673098
sigma_e | 1.1754902
rho | .12620172 (fraction of variance due to u_i)
-----+-----

```

```

F test that all u_i=0:   F(28, 310) = 1.07      Prob > F = 0.3760
. xtreg sr z_FA z_FS z_ocf z_icf z_fcf z_da OCF_DA ICF_DA FCF_DA, re

```

```

Random-effects GLS regression           Number of obs   =   348
Group variable: id                     Number of groups =   29

R-sq:  within = 0.6305                 Obs per group:  min =   12
      between = 0.6505                   avg =   12.0
      overall = 0.6250                   max =   12

                                Wald chi2(9)   =  563.22
corr(u_i, X) = 0 (assumed)           Prob > chi2   =  0.0000

```

```

-----+-----
      sr |   Coef.  Std. Err.   z  P>|z|  [95% Conf. Interval]
-----+-----
      z_FA | -1.886796  .0643212  -2.93  0.003  -3.147468  -.0626124
      z_FS | -4.267717  .0745827  -5.72  0.000  -5.729512  -.2805922
      z_ocf | .6621705  .0769443   8.61  0.000   .5113626  .8129785
      z_icf | .2181811  .0649465   3.36  0.001   .0908884  .3454738
      z_fcf | .6872261  .0797087   8.62  0.000   .5309999  .8434523
      z_da | -1.873415  .0754482  -2.48  0.013  -3.352173  -.0394657
      OCF_DA | .2551839  .0686542   3.72  0.000   .1206242  .3897437
      ICF_DA | -.1470625  .0508096  -2.89  0.004  -.2466474  -.0474776
      FCF_DA | -.135946  .0367099  -3.70  0.000  -.2078961  -.0639959
      _cons | .2709496  .0641114   4.23  0.000   .1452935  .3966057
-----+-----
      sigma_u |      0
      sigma_e | 1.1754902
      rho |      0 (fraction of variance due to u_i)
-----+-----

```

```
. estimate store fe
```

```
. hausman fe re
```

```

----- Coefficients -----
      |   (b)   (B)   (b-B)  sqrt(diag(V_b-V_B))
      |   fe    re   Difference   S.E.
-----+-----
      z_FA | -1.886796  -1.945714   .0058917   .
      z_FS | -4.267717  -4.202785  -.0064931   .
      z_ocf | .6621705   .6544313   .0077392   .
      z_icf | .2181811   .2174451   .000736    .
      z_fcf | .6872261   .7601832  -.0729571  .0128216
      z_da | -1.873415  -.2189464   .0316049   .
      OCF_DA | .2551839   .188471   .066713    .0126462
      ICF_DA | -.1470625  -.1561473   .0090848   .
-----+-----

```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```

chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B)
        = 16.93
Prob>chi2 = 0.0308
(V_b-V_B is not positive definite)


```


```
. xtreg sr fa fs, re
Random-effects GLS regression      Number of obs   =   348
Group variable: id      Number of groups   =    29
R-sq: within = 0.0949      Obs per group: min =   12
      between = 0.2595      avg =      12.0
      overall = 0.0715      max =      12
Wald chi2(2)      =    26.56
corr(u_i, X) = 0 (assumed)  Prob > chi2      =    0.0000
sr   Coef.  Std. Err. z  P>z  [95% Conf. Interval]
fa  -1.0193847  .0055443  -3.50  0.000  -.0302512  -.0085182
fs   .4687184  .1086797           -4.31  0.000  -.6817267  -.2557102
_cons .385081  .8419425  5.21  0.000  2.734904  6.035258
sigma_u      0
sigma_e  1.8354723
rho         0 (fraction of variance due to u_i)
```

```
. xtreg sr fa fs, fe
Fixed-effects (within) regression  Number of obs   =   348
Group variable: id      Number of groups   =    29
R-sq: within = 0.10750      Obs per group: min =   12
      between = 0.33160      avg =      12.0
      overall = 0.0716      max =      12
F(7,312)      =    19.210
corr(u_i, Xb) = -0.825      Prob > F      =    0.0000
sr   Coef.  Std. Err. t  P>t  [95% Conf. Interval]
fa  -1.1590301  .4387097  -1.50  0.000  -.0994157  .0135555
fs   .8502858  .1556996  -5.35  0.000  -1.285971  -.5946011
_cons  0.225192  .100313  5.15  0.000  5.406597  12.09724
sigma_u  .77440411
sigma_e  1.8354723
rho  .15110937 (fraction of variance due to u_i)
F test that all u_i=0:  F(28, 317) =  1.44      Prob > F = 0.0724
```

```
hausman      fe re
---- Coefficients ----
(b)      (B)      (b-B)      sqrt(diag(V_b-V_B))
          fe      re      Difference      S.E.
fa  -1.1590301  -.0193847  -.0235454  .0281693
fs   .8502858  -.4687184  -.4715674  .1380546
b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test:  Ho:  difference in coefficients not systematic
chi2(2) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 16.540
Prob>chi2 = 0.0010
```


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RE: SBE/DPHIL/BM/004/17

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TO WHOM IT MAY CONCERN

RE: SAMOEI BEN KIPNGETICH

The above named is a bonafide student of Moi University School of Business and Economics, undertaking a Doctor of Philosophy in Business Management degree; specializing in Finance. He has completed coursework, defended his proposal, and now he is proceeding to the field to collect data for his research titled: **“Cash Flow Information, Discretionary Accruals and Stock Return of Firms Listed in Nairobi Securities Exchange, Kenya.”**

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

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