

Working Capital and Earnings Management among Manufacturing Firms: A Review of Literature

Josiah Aduda¹ and Morgan Ongoro²

Abstract

This study critically reviewed literature on the relationship between working capital management and earnings management. The specific objectives of the study included determination of documented evidence on; the relationship between working capital management and earnings management, the existence of target working capital management level and target earnings management level and knowledge gaps between the two study variables. Findings on the first objective were conflicting with some researchers establishing a positive relationship, others a negative relationship whereas others were non-conclusive. Findings on the second objective were also conflicting. The divergence in findings were attributed to differences in conceptual, methodological and contextual setups with inconsistencies in operationalization of the study variables playing a pivotal role. The study revealed a biased inclination towards usage of accounting accruals as proxies for earnings management with no consideration for non-accounting accruals like real earnings managements. The study also identified lack of related studies in frontier economies as a potential research gap paving way for future related studies with expanded scope. The study further recommended future research on determination of an optimal working capital level that minimizes real earnings management.

JEL classification numbers: G10, G11, G30, G32, G33.

Keywords: Working capital management, Earnings management, Manufacturing.

¹ Department of Finance and Accounting, University of Nairobi, Nairobi, Kenya.

² Finance department, Total Kenya PLC, Nairobi, Kenya.

1. Introduction

This chapter presents literature on working capital management and earnings management among manufacturing firms.

1.1 Background of the Study

Earnings Management (EM) has been widely adopted by firms not only as a tool for manipulating their top and bottom lines but also as a tool for achieving their Working Capital Management (WCM) targets (Beneish, 2001). Cognizant to the fact that WCM plays a pivotal role in determining firm liquidity, profitability and operational efficiencies, research has now shifted towards examining the relationship, if any, between WCM and EM and the likely impact of variations from target WC on EM levels. There has been no consensus on the subject with opinion still divided as to whether WCM has an impact on EM levels. With stakeholders relying on firm performance and WC levels to evaluate the liquidity, solvency and wealth generating power of their business, EM poses a big threat to investor behavior by elevating information asymmetry levels and misrepresenting the true financial position of businesses (Roychowdhury, 2006).

This study was anchored on five theories namely; liquidity preference theory (Keynes, 1936), Agency theory (Jensen and Meckling, 1976), Trade-off theory (Myers 1984), Signaling theory (Spence, 1973) and Prospect theory (Kahneman & Tversky, 1979). Keynesian liquidity preference theory is relevant to this study as it argues that holding all other factors constant, investors will prefer liquid investments as opposed to illiquid investments and will seek a premium for investments that will take longer to mature. Due to this, firm managers will be inclined towards reporting high liquidity positions. Agency theory will bring out the hypothesized conflict resulting from information asymmetry, trade off theory will expound on conflicting argument for and against adopting different WCM policies and the tradeoff between WCM and EM whereas signaling and prospect theories will be used to amplify the reasons for engaging in EM.

Manufacturing firms' success depends heavily on the ability of financial managers to effectively manage the components of working capital (Filbeck & Krueger, 2005). A firm may adopt an aggressive or a conservative working capital management policy to achieve this goal. A number of manufacturing firms worldwide have been put under statutory management in the last decade as a result of tight cash flow position that made it difficult for them to maintain good supplier relations and operate as going concerns. This condition further leads to loss of customers to competition and worsens their cash flow position thus increasing their likelihood of being placed under receivership or filing for bankruptcy. Managers of manufacturing firms have a motivation to report effective working capital management to investors and this can result in EM especially when they work towards achieving the aforementioned goal (Uyar, 2009).

1.2 Working Capital Management

Deloof (2003) defines working capital management as management of funds tied up in the day-to-day firm operations with the goal of trading off firm liquidity and profitability. To this effect, Baños-Caballero et al. (2012) describes efficient WCM as the ability to set optimal levels of WC, financing the optimal WC levels and imaginatively exercising control over it. Abuzayed (2012) also define WCM as the process of balancing and managing problems that may come up in maintaining optimum levels of: current liabilities, current assets, inventories and their respective interrelationships. According to him, the inability of a firm to maintain an optimum WC level might lead to bankruptcy or insolvency. Building upon the above constructs, Smith (1980) defines WCM as the management of funds tied up in the daily operations with a view to tradeoff risk and profits that are linked with current liabilities and current assets.

The art of balancing firm liquidity and firm profitability often dictates the success or failure of a business depending on how well disposable resources are managed and on how prudent a firm is when it comes to handling operational issues (Mathuva, 2015). To this effect, most organizations have invested their time and resources towards finding suboptimal operation levels wherein financial resources are not unnecessarily tied up in fixed assets and investment quality is not compromised. For firms to maintain sustainable returns on their investments, their WC levels need to be optimized. Over-investment in working capital leads to more funds being tied up as a result of high DSO thus forcing firms to finance their operations through costly external borrowing whereas under investment in working capital leads to stunted growth and minimal ROI (Kieschnick et al., 2006). Negative consequences of both Over/Under investment in WC has paved way for research on optimum WCM policy. An optimum working capital policy allow firms to minimize their operational costs while at the same time reap big on their operational efficiencies (Deloof, 2003). Cognizant to the above, WCM can act both as a catalyst or deterrence to EM and its adoption as a study variable will help in informing optimum financial policy decisions and liquidity management practices (Beneish, 2001).

WC can be categorized into either gross working capital or net working capital. Gross working capital depicts the total value of current assets held by an organization whereas net working capital depicts the excess of current assets over current liabilities (Alver, 2012). The constituent elements of WC include account receivables, account payables and inventory all of which defer in composition depending on the industry in which a firm operates. There have been numerous studies on working capital with different researchers adopting different proxies for measuring WCM. Some researchers adopted the use of cash conversion cycle in measuring WCM (Mathuva, 2015; Deloof, 2003; Shin and Soenen, 1998, Kieschnick et al., 2006 and Baños-Caballero et al., 2012), others adopted Net trade cycles and weighted average cash conversion cycle (Prasad et al., 2019) whereas others adopted Net working capital and cashflow from operations (Ashhari, 2012).

1.3 Earnings Management

EM has been defined differently by academicians, regulators and practitioners depending on the context in which it is practiced. Madan (2015) defines EM as the practice of manipulating earnings with the intentions of misleading those relying on them for decision making and for selfish reasons: achieve contractual targets and capital market targets. Beneish (2001) further breaks down EM into two distinct perspectives: information perspective and opportunistic perspective. The information perspective relates to the discretionary manipulation of earnings by managers with the intention of signaling expectations of future company performance to shareholders. The opportunistic perspective on the other hand relates to the intention of achieving personal goals or targets. The Securities and Exchange Commission defines EM as the use of various dubious methods in order to distort a firm's true and fair financial performance for purposes of achieving desired results (SEC, 1999). Healy and Wahlen (1999) also define EM as the use of managerial discretions in altering firm earnings to mislead stakeholders on the financial status of the firm or to accrue contractual benefits which are pegged on reported earnings.

The consequences of misstated earning cuts across various business segments and can be felt by management, investors, regulators and directors (Peasnell et al., 2000). By relying on misstated earnings for financial, operational and investment decisions, the likelihood of management making wrong decisions is high. Investors who depend on reported earnings to gauge their prospective return on investments are also prone to make wrong investment decisions. Directors and regulator on the other hand are likely to be misguided in their oversight role when they rely on misstated earnings (Dechow et al., 2012). The ripple effects of EM have been catalyzed by the volatility with which firms report their earnings and cash flows. Consequently, if these practices are left unchecked, investor confidence and cash flow management are likely to be the biggest casualties. EM as an academic construct has been linked to various practical operational and managerial inefficiencies hence the reason for its adoption as a study variable.

The efficiency with which firms operate most often than not tends to be linked with their liquidity position. Firms with lower levels of fixed assets compared to current assets are more likely to engage in EM practices since they find it less costly and have more latitude in exercising their discretions on liquid assets through WCM (Burgstahler and Dichev, 1997). This therefore means that the prevalence of EM practices may be higher in industries with large proportions of current assets and that changes in WC can be used as a tool of EM. For EM to be nipped in the bud, there is need for both detective and preventative controls to be put in place. Several EM detections models have been developed over time. These models include: The Yoon's model, Jones model, Modified Jones model, Benish Model, Healy model, DeAngelo model and the Industry model. The building blocks for these models has been on discretionary accruals which can be operationalized using the OLS regression of changes in revenue, changes in receivables and changes in PPE. Most

studies on EM have used the Jones model despite its misspecifications as pointed out by Dechow et al (2012). This study highlighted the various models adopted in extant studies including non-accrual models like the real earnings management model while at the same time critiquing their respective biasness in line with studies by Peasnell et al (2000).

1.4 Manufacturing Firms

Anecdotal evidence has shown the pivotal role that the manufacturing sector plays in economic development be it capital markets development or domestic markets development. The key function of firms in this sector is to transform raw products into finished goods by adding value across the supply chain. For decades, the sector has been at the center of most economic recovery blueprints (Ndemo, 2000). Governments worldwide have been keen on incentivizing the sector with the goal of creating new job opportunities and increasing revenue collection from both domestic sales and exports. In Kenya, successive post independent administrations have prioritized revamping the sector through public- private partnerships and targeted investor friendly policies. These policies have come at the backdrop of the critical linkage that the sector has with other sectors: forward and backward linkages. The sector accounts for an average of 3.2 percent of the country's GDP growth and an average of 12.1 percent of the country's formal employment (Kenya National Bureau of Statistics, 2020).

The contribution of the sector to emerging economies' GDP has however been dwindling over the years in what has come to be known as deindustrialization. This has been occasioned by bad policies and overreliance on imports at the expense of export (Ndemo, 2020). The resulting pressure from deindustrialization has forced most manufacturing firms to maintain a lean WCM policy and to look for additional external funding to finance their operations. Most firms in the sector have reported high cost of production occasioned by high inventory costs and high receivables levels (Mwaura, 2010). Consequently, this has further resulted in liquidity difficulties and closure of firms not able to look for alternative ways of financing their operations. As of 2019, the sector in Kenya reported a 15.3 percent jump in the amount of credit advanced to it by banks. Similarly, the sector reported a jump in the number of approved projects by 65 percent compared to what was recorded in 2018 (Kenya National Bureau of Statistics, 2020). This increase in credit advancement levels and number of approved projects comes with pressure on manufacturing firms to show that they have a sustainable WCM policy and that they are indeed a going concern (Mathuva, 2015)

The surge in demand for external funding and number of approved projects has forced most firms in the sector to look for ways of improving their top and bottom lines. Most of these firms have opted for EM strategies that distort their true financial position in the eyes of; investors, creditors and regulators with most preferring real earnings management through; abnormal low production cost, abnormal low discretionary expenses and abnormal high cash flows from operations

(Cyril et al., 2020). Though perceived as hard to detect, this strategy helps straggling firms in improving their short-term valuation as well as reducing their long-term profitability. Manufacturing firms will therefore be adopted as the study's context given the sectors'; direct and indirect impact on economic performance; forward and backwards linkage to other sectors and ease when it comes to measuring WCM and profitability.

1.5 Research Problem

The relationship between WCM and EM has for a long time remained an unresolved subject in academic circles. Findings from extant empirical studies on the subject have been diverse both in substance and form. These divergences have been majorly attributed to three cardinal factors; differences in methodological approaches, differences in conceptualization of the study variables and differences in contextual settings of the study. There has been no consensus among researchers studying the subject. Some have established a positive linear relationship between WCM and EM with nonexistence of target WCM and target EM (Li et al., 2014; Ashhari, 2012; Roychowdhury, 2006; Chung et al., 2005; Burgstahler and Dichev, 1997), others a negative linear relationship (Yoon and Miller, 2002) whereas others have been non-conclusive on the relationship between WCM and EM but have established the existence of target WCM and target EM evident by a non-linear relationship between WCM and EM (Kerstein and Rai, 2007; Ali, 1994).

Researchers studying the relationship between WCM and EM have conceptualized the two variables in different diverse ways. These conceptual differences though subtle remain potent when it comes to understanding the divergence in research findings on the relationship between WCM and EM. Studies that conceptualized EM in terms of discretionary accounting accruals established either a positive linear or a negative linear relationship between WCM and EM with nonexistence of target WCM and target EM (Li et al., 2014; Ashhari, 2012; Roychowdhury, 2006; Chung et al., 2005; Yoon and Miller, 2002; Burgstahler and Dichev, 1997). On the other hand, those that conceptualized EM in terms of abnormal earnings changes and abnormal operational costs were non-conclusive in their findings on the relationship between WCM and EM but established the existence of target WCM and target EM evident by a non-linear relationship between the two variables (Kerstein and Rai, 2007; Ali, 1994).

The divergence in research findings on the subject can also be explained by divergence in methodological approaches adopted by various researchers. Studies that adopted a multivariate analytical approach established either a positive linear relationship or remained non-conclusive on the relationship between WCM and EM (Li et al., 2014; Ashhari, 2012; Kerstein and Rai, 2007; Chung et al., 2005; Roychowdhury, 2006; Burgstahler and Dichev, 1997; Ali, 1994). On the other hand, those that adopted a univariate analytical approach established a negative linear relationship between WCM and EM with nonexistence of target WCM and target EM (Yoon and Miller, 2002). Studies that adopted Ordinary least square regressions

established a positive linear relationship between WCM and EM with nonexistence of target WCM and target EM (Abuzayed, 2012 ;Burgstahler and Dichev, 1997; Roychowdhury, 2006) whereas those which adopted a random walk models were non-conclusive but established the existence of target WCM and target EM evident by a non-linear relationship (Kerstein and Rai, 2007; Ali, 1994).

In addition to the above highlighted gaps, divergence in research findings on the subject have also been occasioned by differences in contextual settings. Extant studies on WCM and EM have predominantly been domiciled in developed markets: western countries and Asia Pacific countries with no study on the subject having been done in frontier markets. Studies done in developed western countries were non-conclusive on the relationship between WCM and EM but also established the existence of both target WCM and target EM (Kerstein and Rai, 2007; Ali, 1994). On the other hand, studies done in developed Asia-Pacific countries established a positive linear relationship between WCM and EM with nonexistence of target WCM and target EM (Li et al., 2014; Ashhari, 2012; Chung et al., 2005; Burgstahler and Dichev, 1997; Ali, 1994).

Based on the above highlighted gaps and cognizant to the desire by firms to improve their liquidity and profitability status through either efficient WCM or EM practices (Madan, 2015), this study intends to answer the following questions; is there a relationship between WCM and EM? do firms maintain target WC and target EM and what are the existing knowledge gaps in the study of WCM and EM.

1.6 Research Objectives

The main objective of this study is to do a critical literature review on the relationship between working capital management and earnings management of manufacturing firms. The specific objectives include:

- a) To determine documented evidence on the relationship between working capital management and earnings management.
- b) To determine documented evidence on the existence of target working capital management levels and target earnings management levels.
- c) To identify knowledge gaps in the relationship between working capital management and earnings management.

2. Preliminary Notes and Methodology of Research

This study adopted a descriptive research design in conducting a critical literature review on working capital management and earnings management. This type of research design allows researchers to gather, summarize, present and interpret research findings for the sole purpose of drawing conclusions on variables that are relevant to the research questions. In line with the above, the study reviewed related empirical literature on working capital management and earnings management.

2.1 Definition

Working capital management has been defined in different ways depending on the context of the study under consideration. Deloof (2003) defines working capital management as management of funds tied up in the day-to-day firm operations with the goal of trading off firm liquidity and profitability. Baños-Caballero et al. (2012) defines efficient WCM as the ability to set optimal levels of WC, finance the optimal WC levels and imaginatively exercising control over it. Abuzayed (2012) also define WCM as the process of balancing and managing problems that may come up in maintaining optimum levels of: current liabilities, current assets, inventories and their respective interrelationships.

Madan (2015) defines earnings management as the practice of manipulating earnings with the intentions of misleading those relying on them for decision making and for selfish reasons: achieve contractual targets and capital market targets. Beneish (2001) further breaks down EM into two distinct perspectives: information perspective and opportunistic perspective. The information perspective relates to the discretionary manipulation of earnings by managers with the intention of signaling expectations of future company performance to shareholders. The opportunistic perspective on the other hand relates to the intention of achieving personal goals or targets. The Securities and Exchange Commission defines EM as the use of various dubious methods in order to distort a firm's true and fair financial performance for purposes of achieving desired results (SEC, 1999). Healy and Wahlen (1999) also define EM as the use of managerial discretions in altering firm earnings to mislead stakeholders on the financial status of the firm or to accrue contractual benefits which are pegged on reported earnings.

2.2 Theoretical Review

This section reviews anchor theories related to the study. The study will focus on Keynesian liquidity preference theory and agency theory in explaining the importance of efficient WCM, trade off- theory in explaining the risk and returns of WCM and EM, signaling and prospect theories in explaining EM strategies and the motivation behind EM. The adoption of Agency theory will be in line with studies done by (Baños-Caballero et al., 2012; Baños-Caballero et al., 2014; Mathuva, 2014; Mathuva, 2010 (Aktas and Petmezas, 2015; Chauhan and Banerjee, 2018) all of which used Agency theory in explaining working capital management.

2.2.1 Keynesian Liquidity Preference Theory

The Keynesian liquidity preference theory was formulated by Keynes (1936) and it laid a foundation for WCM. In this theory, Keynes argues that holding all other factors constant, investors will prefer liquid investments as opposed to illiquid investments and will seek a premium for investments that will take longer to mature. Liquidity is the expediency of holding cash. An individual or firm will hold money for various reasons at a given time (Bitrus, 2011). Based on the theory, firms hold cash or inventory to meet their transaction, speculative, precaution, and

compensation motives. The transaction motive involves the firm's need to hold cash or money for purposes of meeting current transactions for business exchanges. Firms need to hold cash to be able to pay for current needs such as transport, raw materials, wages among others. Precautionary motive is whereby firms keep cash as security for unanticipated emergencies. Any given firm will set aside some money to manage hardships or to benefit from unforeseen deals. Speculative motive is whereby firms maintain assets in liquid form to benefit from prospective adjustments in the interest rates or bond prices (Pandey, 1997).

Keynes liquidity preference theory has been criticized for holding that interest is the reward for parting with liquidity. That is the higher the liquidity preference, the higher the rate of interest and the lower the liquidity preference, the lower the rate of interest. During depression, people have a high liquidity preference but the rate of interest is extremely low. In times of inflation people have low liquidity preference but the rate of interest is very high. These facts go against Keynes's theory. This is because Keynes did not take the income level into account. The modern determinate theory can explain this fact satisfactorily (Gill et al., 2010). Further, Keynes assumes that the choice is always between liquid cash and illiquid bonds. This theory is, therefore, an 'all or nothing' theory. In reality, there are various types of investable assets varying in degrees of liquidity (Stewart, 2011).

Keynesian liquidity preference theory is relevant for this study since the necessity of liquidity to facilitate daily activities of a firm cannot be ignored. Managers of manufacturing firms ought to maintain working capital at levels that enhance achievement of the firm's objective which is to maximize shareholder wealth. The theory however does not connect how working capital management will influence EM but it can be hypothesized that failure to achieve the targeted working capital management might motivate managers to EM. Gakure et al. (2012) noted a significant negative association between a firm's liquidity and its financial performance. Firms have to ensure they minimize the total cost of liquidity and cost of illiquidity, WCM objective being enhancing both liquidity and firm value (Pandey, 1997).

2.2.2 Agency Theory

Agency theory was proposed and developed by Jensen and Meckling (1976). They define agency as a contractual agreement between a principal and an agent who is mandated to perform services on behalf of the principal. The contractual agreement is then confined to prevailing market dynamics which provide incentives to limit agency problems. The principal occasionally delegates his decision-making authority to the agent with expectation that the agent will be a good steward. According to this theory, conflict between principals and agents may arise due to divergence in risk preferences, moral hazards, information asymmetry and separation of ownership from control. This theory helps in explaining the relationship between WCM and EM by positing that managers may manipulate both their working capital and reported profitability by exclusively investing in short

term profitable projects that helps them meet their performance targets. Investors on the other hand prefer long-term investments promising high sustainable ROI and often rely on published financials for valuing their investment. The information asymmetry level between managers and investors therefore plays a big role in enhancing EM practices and agency problems in the long run. For principals to manage these conflicts, there is need for them to incur agency costs like monitoring costs, bonding costs and residual loss. Subsequent theories that modified this theory included; behavioral agency theory, stewardship theory, stakeholder theory and shareholders theory. The above modifications were built on the assumption of goal congruence between agents and principals by placing agent performance at the center of the agency model and arguing that agents tend to be loss averse subject to a certain reference point.

Previous researchers who relied on this theory to explain WCM have strongly backed its assumption that both the principal and the agent are motivated by self-interest. These researchers have highlighting the theory's ability in explaining and managing persisting operational and financial conflicts between managers and shareholders (Baños-Caballero et al.,2012; Mathuva, 2014). They posit that for managers to maximize shareholder's wealth, there is need for them to invest only in portfolios that generate positive net present values. Asher et al (2005) critiques this line of thinking by stating that it is too optimistic to think that firms can readily identify all aspects of the agency problem that maximize the net present value and that the theory places too much emphasis on the agent at the expense of institutions. Rowe, (1982) also critics this theory on two levels; the theory does not give satisfactory answers as to why the agent caused his free undertaking and it is also unable to account for the ways in which events are thought to influence agent's free actions. Despite the aforementioned criticism, this theory has been widely viewed in finance circles as an anchor theory and remains to be key in explaining the relationship between WCM and EM.

The theory's presupposition of existence of information asymmetry between principals and agents remains critical in explaining the relationship between WCM and EM. For firms to minimize their agency cost, Jensen and Meckling (1976) advocate for the establishment of an optimal level where agency costs are minimized, and wealth maximization is optimized and by extension an optimum level of WCM which minimizes EM level. It is thus important to note that since shareholders are not involved in the day to day operations of their business and rely on financial information prepared by management, the likelihood of management to manipulate their financials through EM and WCM remains high. This theory therefore hypothesizes that the higher the EM level the higher the agency cost. In line with the above, the following constructs can be deduced from the agency theory for purposes of developing a conceptual framework; wealth maximization proxied by effective working capital management and agency cost proxied by; EM levels, deviation from target WCM and deviation from earning threshold.

2.2.3 Trade off Theory

Proposed by Myers (1984), this theory lays emphasis on the importance of balancing between the risk and return of using debt and equity financing. The balance as advocated by Myers (1984) can only be achieved through a cost-benefit analysis of; tax savings, agency cost, deadweight bankruptcy costs and financial distress. This theory has been extensively used in other fields of finance other than in the study of capital structure and can therefore be extrapolated to explain the existence of an optimum target WCM level wherein EM is minimized (Ashhari, 2012). Subsequent modifications to this theory advocated for usage of internally generated funds. These theories included; the pecking order theory and Modigliani and Miller capital structure relevance theory. The above modifications expanded the scope of risk- return analysis to cover a broad range of topics like dividend payments and WCM.

Proponents of this theory have backed its assumption of existence of an imperfect market with high information asymmetry levels. They further highlight the ability of the theory in explaining the existence of an optimum target level of capital structure that minimizes financing costs and maximizes accrued benefits to firms (Leary and Roberts, 2010; Hennessy and Whited, 2005; Strebulaev, 2007 and Sheikh and Wang, 2011). Critics of the theory on the other hand have argued against its assumption of a positive correlation between earnings and leverage and its inadequate static model (Awan and Amin, 2014; Chen and Chen, 2011; Frank and Goyal, 2003). It is however important to note that this theory expands and elaborates the tenet of risk and return in finance by alluding to the fact that firms decide what their optimal level of cash holdings should be by comparing the marginal cost and benefits of holding cash. The theory is also helpful in explaining various working capital structure policies along with the costs and benefits of adopting an aggressive or a moderate working capital policy.

In line with the theory's assumptions of optimality, this study hypothesizes that firms maintain target working capital levels and target earnings management levels with the aim of minimizing the risk of EM and maximizing firm value through efficient WCM. The above hypothesis is supported by the theory's analogy that optimality can only be achieved when there is a match between the costs and benefits of different alternatives and where both information asymmetry levels and agency costs are minimized (Frank and Goyal, 2003). The theory's assumption of existence of mean reverting and target adjustments tendencies further expands the need for optimality between WCM and EM. This study extrapolates the above constructs by investigating whether there exists an optimum level of WCM which minimizes EM thus reducing both information asymmetry levels and agency costs.

2.2.4 Signaling Theory

This theory was developed by Spence (1973) based on the knowledge gaps between organizations and their prospective employees. The theory describes the behavior of two or more entities with different levels of access to information and can be used

in explaining the relationship between WCM and EM. According to Spence, the problem of information asymmetry arises between those holding information and those in need of the information for decision making and can only be mitigated when one party, signaler, sends a signal to another party, receiver, that reveals important and relevant information. This therefore means that it is the sender's prerogative to decide when and how to send the signal whereas the receiver on the other hand has the power to choose how to interpret the signal. The decision to send signals depend on the cost associated with it. Firms will only send signals, whether true or false, depending on the payoff that they are likely to accrue (Kirmani and Rao, 2000). The difference in payoffs between a true and false signal creates a separation equilibrium between high quality firms and low-quality firms. Subsequent modifications to this theory included the dividend signaling theory which sought to answer the specific reason as to why firms adopt specific dividend policies and further expanded the scope of the theory to other related field of study. Previous scholars who have adopted this theory's assumption of information asymmetry posit that managers do send unobserved signals regarding their expected performance to potential investors through observed qualities of their financial statements (Ross, 1973; Riley, 2001; Zhang and Wiersema, 2009; Miller and Triana, 2009; Elitzur and Gaviious, 2003). A few have however critiqued the theory arguing that its key concepts have become blurred over time (Highhouse et al., 2007; Ehrhart and Zieget, 2005). It is however important to recognize the critical role that information signaling plays on investor behavior. Prospective investors rely on both available public information and sometimes private information, incases of insider trading, to make their investment decisions and are therefore prone to the negative effects of information asymmetry (Stiglitz, 2002). This therefore means that management teams are likely to engage in EM to send positive signals to investors and other regulatory bodies.

This theory is built upon the assumption of market imperfection and focuses on the actions taken by insiders when passing positive signals to outsider which in this case is aided by EM. This study intends to extrapolate the constructs deduced from the signaling theory in explaining the effect of incentives, proxied by WCM, on the potential moral hazards that may arise from management behavior proxied by earnings management. This will be in line with studies by Ross (1973) and Devers et al. (2007).

2.2.5 Prospect Theory

This theory was proposed by Kahneman and Tversky (1979). The theory is anchored on two phases of the decision-making process, framing phase and valuation phase. Framing phase represents the phase for development of constructs, contingencies and outcomes. Valuation phase on the other hand represents the phase for assessing the value of each alternatives. This theory is helpful in describing and understanding EM motives by positing that people tend to be loss averse by nature and would therefore make decisions that guard against loss making in the immediate

foreseeable time regardless of the miniscule probability of them incurring loss. This theory proceeds further to discuss the biases that individuals use when making decisions. These biases include; certainty, isolation effect and loss aversion. Individuals with certainty biases tend to prefer a small but certain reward over and above prospective larger gains. Individuals with isolation effect tend to disregard common elements featuring in their options in a bid to lighten their decision-making process whereas individuals with loss averse bias tend to avoid losses as much as they can. Subsequent modification to this theory included the Cumulative prospect theory by Kahneman and Tversky (1992) which applies risk weighting to the cumulative probability distribution function unlike the original theory which was based on probabilities of individual outcomes.

Previous scholars who adopted this theory's assumption that choices are often evaluated relative to a referent point included Burgstahler and Dichev (1997) and Hayn (1995). The two posit that the main driver for EM is the desire by management to avoid reporting losses and to avoid missing their performance targets. This theory brings out the fact that managers avoid reporting losses because of both relative and absolute loss aversion among capital market agents. This therefore means that firms with inadequate working capital are more prone to manage their earnings to avoid reporting losses in the short run. A few scholars have however critiqued this theory arguing against its assumptions of linear preferences of outcomes and source independence. Ellsberg (1961) argued that an individual's willingness to be a risk taker not only depends on the degree of uncertainty but also on the source of the risk. (Highhouse et al., 2007 : Ehrhart and Ziegert,2005). It is however important to recognize the role that this theory plays in explaining motivational factors for firms to engage in EM. The theory hypothesizes a positive correlation between working capital management and Earnings management given its direct effect on the operational efficiencies of firms. This study intends to extrapolate the constructs deducted from the prospective theory in explaining why firms may engage in EM and the role that working capital plays on EM level. This will be in line with studies by Burgstahler and Dichev (1997) and Hayn (1995).

2.3 Knowledge Gaps from Theoretical Literature Review

This section reviews the knowledge gaps that arose from the review of theories on the relationship between working capital management and earnings management. Below are some of the knowledge gaps identified in the review of theories;

Keynesian liquidity preference theory argues that holding all other factors constant, investors will prefer liquid investments as opposed to illiquid investments and will seek a premium for investments that will take longer to mature. This theory though relevant when it comes to emphasizing the need for liquidity to facilitate daily activities of a firm might fall short in the face of variation of other extraneous variables. Despite the theory not explicitly connecting how working capital management influences EM, it can still be used in hypothesizing that failure to achieve targeted working capital management characterized by optimum liquid

investments might motivate managers to EM. Firms have to ensure they minimize the total cost of liquidity and cost of illiquidity, WCM should be both to enhance liquidity and shareholder returns.

Agency theory is premised on the assumption of goal non-congruence between agents and principals and might fall short in situations where there is actual goal congruence between the two parties and especially when agents are motivated by principals to align their personal goals with the principal's goals. There is therefore need for research on agency theory to determine the optimum point when goal congruence can be attained and how and what managers ought to do to further maximize their wealth even in situations where goal congruence is already attained. It will therefore be interesting to modify the theory to accommodate cases where goal congruence between agents and principals exists. Future studies should also consider the principal to be more than just owners of financial resources by also acknowledging the psychological ownership role that they play when relating with their agents.

Trade off theory in and of itself is based on the tenets of capital structure. The theory confines itself within the boundaries of the risks and returns of using debt financing thus limiting its scope of study. As earlier on deduced in the theoretical review section, this theory comes in handy when explaining the risk and return concepts in finance. However, this theory as discussed does not explain measures and policies that can be adopted to minimize both capital structure risk and earnings management risk hence setting room for future studies to address this gap.

Signaling theory as discussed assumes that managers often send mixed signals to the public through published information. Despite its relevance in explain the importance of sending correct signals to stakeholders, this theory does not explain and analyze different costs associated with sending different signals. It will be important to do a cost benefit analysis of both positive and negative signals and to determine when, what and how to transmit signals to those relying on them for decision making.

Prospect theory is premised on the assumption that firms try as much as possible to avoid loss making and would therefore have a target level of performance in mind toward which they will gravitate. Despite being usefulness in explaining why firms might engage in earnings management, this theory does not explain how to arrive at the target optimum levels of operations which minimizes deviation from targets. The theory does not also explain what level of deviation from the target is favorable and what level is undesirable. Future studies should strive to explore and answer this left out research area.

2.4 Summary of the Theoretical Review

Agency theory helps in explaining the hypothesized relationship between WCM and EM by expounding the concept of conflict of interest between management who want to achieve short term goals through EM and shareholders who are interested in maximizing their ROI through efficient WCM. The theory further contributes to

the development of the study's conceptual framework by paving way for the adoption of WCM as the proxy variable for shareholders interest and EM as the proxy variable for management behavior. Agency theory also helps in explaining the likely impact of both negative and positive deviations from target WCM on EM using univariate analysis. Agency theory is therefore relevant to this study given its contribution toward answering all the three specific objectives of this study.

Trade off theory helps in hypothesizing the importance of optimum WC level that minimizes EM. It does this by elaborating the distinct risk and return relationship that exists between the desire for maintaining a lean WCM policy and managing earnings for positive reviews. The theory will help in answering objective two and three with regards to establishing if and why firms ought to maintain an optimal level of WC. The theory therefore helps in explaining the intricate balance between the dependent and independent study variables.

Signaling theory and prospect theory helps in explaining the various EM strategies that a firm might use based on specific reference points. The two theories go further to explain the reasons as to why firms might adopt EM in their communication to the general public. These theories will therefore help in addressing objective one on the joint relationship between WCM and EM. They will also help in addressing objective two of the study on the existence of target working capital level and target earnings management.

3. Main Results

3.1 Empirical Literature Review

This section identifies and discusses empirical literature on the relationship between working capital management and earnings management, the mediating role of firm performance and the moderating role of corporate governance. Sources of literature reviewed included academic journals, books and articles that relate to the study attributes. The chapter also identifies general research gaps from reviewed empirical studies.

3.1.1 Working Capital Management and Earnings Management

Yoone and Miller (2002) did a study on the impact of cashflow from operations on EM between 1994 to 1997 using four research design model; Mean accrual test, correlation test, regression analysis and sign change test. The study categorized Korean Industries into 10 cashflow portfolios ranging from smallest to biggest. Earnings management was proxied by discretionary accounting accruals. The study found a significant negative linear relationship between cashflow from operations and EM with nonexistence of target WCM and target EM. This meant by extension that working capital was negatively related to earnings management and that firms were more likely to engage in income decreasing strategy when their operational performance is poor. The study concluded with a suggestion that future research should consider examining the existence of a non-linear relationship between cashflow from operations, working capital and earnings management. Findings

from this study helped in answering objective one and three by establishing the existence of a relationship between WCM and EM and suggesting potential related research areas for future studies. The shortcoming of the study was its exclusion of non-industrial firms, exclusion of control variables and exclusion of other measures of WCM like sales outstanding days and inventory outstanding days.

Chung et al. (2005) did a study on free cash flow, agency cost, earnings management and investor monitoring on 6,374 firm year observations between 1988 to 1999 using cross-sectional regression research design model. The study only considered firms whose total assets was above USD 1 million and adopted the level of growth opportunities as its control variable. Free cash flow was measured by (Net operating cash flow – Cash dividends-Capital expenditure) scaled by total sales. Growth opportunity was proxied by price to book value ratio whereas EM was proxied by both discretionary accounting accruals as measured by the modified Jones model and total working capital accruals being the net of changes in current assets, changes in current liabilities, changes in long term debt and changes in tax payable scaled by lagged total assets. The study established a significant positive linear relationship between; free cash flow, negative discretionary accruals and working capital accruals with nonexistence of target WCM and target EM. This meant that managers tend to use income decreasing accruals when having high free cash flows by investing in negative NPV projects. The study concluded with a suggestion that future research should consider studying the role of institutional investors in leveraging the gap between WCM and EM. Findings from this study helped in answering objective one and three by establishing the existence of a relationship between WCM and EM and suggesting potential related research areas for future studies. The shortcoming of the study was its exclusion of firms with less than USD 1 million in total assets and its exclusive focus on accounting accruals thus ignoring non accounting accrual EM strategies like real earnings management.

Kerstein and Rai (2007) did a study on the relationship between working capital accruals and Earnings management on 31,894 firm year observations between 1982 to 2001 using a random walk expectation research design model. The study only considered firms with positive net income and factored in three control variables; risk, growth and persistence. Firms were categorized into four mutually exclusive groups; positively small earnings changes, negative small earnings changes, positively large earnings change and negative large earnings changes. The study adopted changes in earnings before extraordinary items as its proxy for EM and the difference between current assets and current liabilities scaled by total sales as its proxy for working capital accruals. The study was non-conclusive as to the relationship between working capital accruals and EM but established existence of target WCM and target EM evident by a non-linear relationship. 67 percent of firms reporting small increase in earnings used small accruals, 15.5 percent used positive large working capital accruals, whereas 17.5 percent used negative large working capital accruals. 36.5 percent of firms reporting large increases in earnings had small accruals, 28.9 percent had positive large working capital accruals and 34.6 percent had negative large working capital accruals. The study concluded with a

suggestion that future research should consider studying the non-linear relationship between WCM and EM. Findings from this study helped in answering objective one and three by establishing a non-conclusive relationship between WCM and EM and suggesting potential related research areas for future studies. The shortcoming of the study was its exclusion of loss-making firms thus puncturing its generalizability. The criteria for categorizing firms was also very subjective.

Li et al. (2014) did a study on the relationship between working capital management and discretionary accruals using correlational and longitudinal research design model. The study categorized firms into those that offer seasonalized equity with increased investment in working capital and those firms which reduce both capital and investment in working capital. The study adopted growth rate in number of employees as its proxy for growth in working capital management and discretionary accrual as its proxy for EM. Firms were further grouped into four equally sized groups ranging from those with the highest level of WCM growth to those with the lowest levels of WCM. The study established a significant positive linear relationship between WCM and EM with discretionary accruals of the first quartile firms being significantly greater than those of other quartiles. The study also established nonexistence of target WCM and target EM. This finding presupposed that firms with high levels of WC growth were more likely to engage in EM than their counterparts due to pressure to sustain their operating cash flows. The study concluded with a suggestion that future research on EM should consider the role of WCM in determining the level of EM. Findings from this study helped in answering objective one and three by establishing the existence of a relationship between WCM and EM and suggesting potential related research areas for future studies. The shortcoming of the study was the limited scope of its proxy for WCM which does not capture the real tenets of working capital like sales position, receivables position and payables position. The focus on accounting accruals as a measure of EM is also limited to the extent that it disregards other non-accrual EM strategies like the real earnings management.

3.1.2 Working Capital Management, Firm Performance and Earnings Management

Ashhari (2012) did a study on working capital management, firm performance and Earnings management of 244 public listed companies in Malaysia and Thailand accruals from 1994 to 2007 using the Generalized Momentum research design model. The study adopted differences between current assets and current liabilities as its proxy for WCM and accounting discretionary accrual measured by the Modified Jones Model as its proxy for EM. The study established a significant positive linear relationship between WCM and EM both in Malaysia and Thailand with firm performance intervening in the relationship and with nonexistence of target WCM and target EM. This presupposed that firms with high levels of current assets were more likely to engage in EM than their counterparts due to pressure to finance their high liquidity demand. The study concluded with a suggestion that

future research should consider studying the impact of specific WCM policies on EM. Findings from this study helped in answering objective one and three by establishing the existence of a relationship between WCM and EM and suggesting potential related research areas for future studies. The shortcoming of the study was that it looked at listed firms as one homogeneous group disregarding the sectoral impact on the study variables thus raising questions on its ability to be generalized across different sectors. Its focus on accounting accruals as a measure of EM was also limited to the extent that it disregarded other non-accrual EM strategies like the real earnings management. The study also failed to investigate the effect of constituent element of WCM on EM instead it looked at WCM as a single homogeneous item.

Makau (2019) focused on effect of working capital financing policy on financial performance of firms listed at the Nairobi Securities Exchange. The study employed a descriptive study design and the population was made up of 45 non-financial corporations quoted at NSE as at 31st December 2018. The research entirely used secondary data, which was retrieved by use of data collection sheet for a time-period of five years from 2014 to 2018. The collected data was sorted and keyed into the SPSS then analyzed using descriptive statistical tools like the mean, standard deviation, maximum and minimum values and the regression technique to establish the link between the dependent and explanatory variables. The results revealed a negative and significant relationship between aggressive financing policy and ROA while the relationship between leverage and ROA was also negative and statically significant respectively. The results further established that the relationship between company size and ROA was positive but statistically insignificant but the association between liquidity and ROA was negative and significant respectively. The study concluded that the aggressive financing policy, leverage and liquidity significantly affects the financial performance of firms listed at NSE.

3.1.3 Working Capital Management, Corporate Governance and Earnings Management

Mansor (2013) focused on corporate governance and earnings management specifically from the perspective of family owned companies (FOC) and the non-family owned companies (NFOC) Malaysian companies. A total sample of 264 public listed companies were selected based on stratified samplings. The results showed that for FOC, only number of board meetings held; while for NFOC, independence of directors, audit committee, non-duality, audit committee size, in-house internal audit function and quality differentiated auditors are the corporate governance mechanisms that are found to be able to assist in minimizing the EM activities.

Iraya et al. (2015) sought to establish the relationship between corporate governance practices and earnings management for companies quoted at the NSE. This study adopted a descriptive research design. The target population consisted of the 49 companies that had been continuously and actively trading at the NSE between

January 2010 and December 2012. The study used secondary quantitative data to analyze the relationship between corporate governance and earnings management. This data covered the period 2010 to 2012. From the findings, the study found that a unit increase in ownership concentration will cause a decrease in earnings management, further a unit increase in board size will lead to a decrease in earnings management, a unit increase in board independence will lead to a decrease in earnings management, a unit increase in board activity will lead to an increase in earnings management and a unit increase in CEO duality will further lead to an increase in earnings management.

Iqbal, Zhang and Jebran (2016) studied the impact of corporate governance practices on earnings management. They employed fixed effect estimators on a sample of 89 non-financial companies listed on Karachi Stock Exchange, for the period 2003–2012. Corporate governance has been quantified through four different practices (namely, board size, managerial ownership, CEO–chair duality, and audit committee independence) whereas discretionary accruals have been used as a proxy for measuring earnings management. The findings are that audit committee independence and earnings management are negatively correlated. Similarly, CEO–chair duality is positively associated with earnings management. However, two of the corporate governance variables (i.e., board size and managerial ownership) are found insignificantly related to earnings management.

3.2 Summary of Empirical Literature Review and Key Gaps

Empirical studies on the relationship between working capital management and earnings management have yielded different conflicting findings. Some studies have established a positive linear relationship with nonexistence of target WCM and target EM (Li et al., 2014; Ashhari, 2012; Chung et al, 2005; Burgstahler and Dichev, 1997), others a negative linear relationship with nonexistence of target WCM and target EM (Yoon and Miller, 2002) whereas others have been non-conclusive but established the existence of target WCM and target EM evident by a non-linear relationship (Kerstein and Rai, 2007;. Ali, 1994).

Empirical studies discussed in the previous section revealed existence of conceptual, methodological and contextual gaps. Conceptual gaps were manifested through differences in operationalization of both working capital management and earnings management. Working capital management was operationalized differently by different researchers: cashflow from operations, net working capital, growth in number of employees and free cashflows. Earnings management was also operationalized differently: discretionary accruals, earnings changes and changes in price to book value ratio. The above highlighted conceptual gap paves way for research on determination of the most efficient and comprehensive measure of WCM and EM.

Methodological gaps from the review of empirical studies were manifested through lack of consensus in adopted research methods. Some of the adopted research methodologies including; Ordinary least square regressions, generalized

momentum model, cross-sectional regression models, linear random walk expectation model, non-linear random walk expectation model, mean accrual tests, correlation tests, sign change tests, modified Jones discretionary accrual model and Yoon discretionary accruals model. The above highlighted Methodological gap paves way for research on determination of the most efficient and comprehensive research method to be used in the investigation of the relationship between WCM and EM.

Contextual gaps from the review of empirical studies were manifested through differences in research settings. Most of the empirical work on the subject area were done in developed western economies, few in developed Asia -Pacific economies while none in frontier economies. The above highlighted contextual gap paves way for research on the relationship between working capital management and earnings management to be done in developing economies.

These gaps have shown that research on working capital management and earnings management relationship still has several grey areas with no empirical consensus. The study therefore highlights these glaring research gaps based upon which recommendations for future research on the subject area will be done.

4. Summary

This paper reviewed the relationship between working capital management and earnings management. The study was guided by three cardinal research objectives which included; investigation of the relationship between WCM and EM, investigation of the existence of target WCM and target EM and investigation of knowledge gap on WCM and EM. These research objectives were aligned to the hypothesized value of the study whose target were; policy makers, practitioners and academics. Extant studies on the subject that were reviewed showed conflicting findings on the nature of the relationship between WCM and EM. The divergence in findings: positive, negative and non-conclusive, were majorly attributed to differences in methodological, conceptual and contextual approaches adopted by different scholars studying the subject.

This paper highlighted five key theories that explained and expounded the relationship between working capital management and earnings management as summarized in the review of literature: Keynesian liquidity preference theory, Agency theory, Trade off theory, Signaling theory and Prospect theory. The adopted theories informed the development of concepts and constructs linking WCM and EM. The relevance of the theories in achieving the study's specific objectives and in answering the research problems formed the pillar upon which the theoretical review section was underpinned.

5. Conclusion and Recommendations

5.1 Conclusion

Findings from the review of empirical literature on the first research objective revealed that a relationship between working capital management and earnings management indeed exists. The bone of contention however is on the nature of the relationship between these two study variables. Some scholars established a positive relationship, others a negative relationship whereas others were non-conclusive. The divergence in findings were attributed to variation in research methodologies, variation in conceptualization of study variables and contextual differences.

On the question of existence of target WCM and target EM which happened to be the basis of the second objective, findings from empirical literature review were conflicting with studies that adopted a multivariate analytical approach showing that firms indeed maintain target WCM and target EM levels in line with the Prospect theory and as evident by the non-linear relationship between WCM and EM whereas those that adopted a univariate analytical established non-existence of both target WCM and target EM among firms as evident by a linear relationship between WCM and EM.

Working capital dictates the liquidity position of firms and can therefore be used as a demarcation for performance sustainability across different sections. Firms that manage their working capital effectively tend to outshine their peers in profitability and sustainability hence getting positive review in the capital market. On the other hand, firms that poorly manage their working capital are likely to witness a drop in investor confidence hence might struggle to raise funds in the capital market. This therefore makes those firms with ineffective working capital management policies to be prone to manipulating their earnings through earnings management. The unprecedented rise in EM practices remains a course of concern among financial practitioners especially with the realization of the level of information asymmetry that exists generally in financial markets and particularly in emerging economies. With unpredictable business environment, the need to effectively manage working capital cannot be underscored neither should the intent to curb earnings management practices be ignored.

The field of earnings management is an emerging field of study whose inclination has been skewed towards accounting accruals with very few studies looking at non accounting accruals EM strategies like real earnings management and the interrelation between working capital management and earnings management. It is therefore important to note that despite WCM being an established field of finance, there has been few studies done to establish its relationship with EM and the few studies that have been done have not yet achieved consensus on the relationship between WCM and EM. This highlighted knowledge gaps as revealed in the literature review helps in answering objective three of the study.

5.2 Recommendations for Further Research

Based on the literature reviewed concerning working capital management and earnings management and on the highlighted limitations of the study, the following recommendations for future research may be proposed;

Future related studies should consider empirically investigating the moderating role that corporate governance plays on the relationship between working capital management and earnings management. Corporate governance has been known as an enabler of transparency, accountability and good practice and therefore can be hypothesized to have an indirect influence on the relationship between WCM and EM. Since extant related studies did not consider any intervening variable, consideration of corporate governance as an intervening variable in the study will help in bridging this knowledge gap.

Future related studies should consider empirically investigating the intervening role that firm performance plays on the relationship between working capital management and earnings management. Firm performance has been hypothesized to influence both WCM and EM by dictating the WCM policy that a firm adopts and the level of EM that a firm is willing to engage in. Since extant related studies did not consider any moderating variable, consideration of the moderating effect of firm performance on the relationship between WCM and EM will help in bridging this knowledge gap.

Future related studies should consider adopting firm size as a control variable in their study. The nature of the relationship and the strength of the correlation coefficient between WCM and EM might be affected by the size of the firm in consideration. Different firms with different sizes tend to have different structures and different policies. Since extant related studies did not consider any control variable, consideration of firm size as a control variable in related future studies on WCM and EM will help in bridging this knowledge gap.

Future related studies should consider empirically investigating the influence of other extraneous variables like prevailing regulatory environment and organizational culture on the relationship between WCM and EM. These extraneous variables indirectly influence earnings management despite not being part of the list of independent variables. Since extant related studies did not consider any extraneous variable, consideration of regulatory environment and organizational culture as control variables in related future studies on WCM and EM will help in bridging this knowledge gap.

Future related studies should consider using non-accounting accruals earnings management strategies like real earnings management as proxies for EM in their empirical studies on WCM and EM. This is cognizant to the fact that unlike accounting accruals, non-accounting accruals earnings management strategies have a direct impact on a firm's; operational efficiency, liquidity position and profitability status. If considered, this will help in broadening the scope of earnings management studies.

Practitioners should consider establishing an optimal target level of working capital

which minimizes earnings management in their organization. More funds should therefore be channeled towards empirical research on optimum working capital levels and implementation of effective ways of maximizing WCM and minimizing EM both in the short and long run. Focus should also be directed towards understanding the intervening role of target working capital management and target earnings management on the relationship between the two variables.

Policy makers should consider investigating the ultimate influence of earnings management on investor behavior and whether working capital management intervenes in such a relationship. This will help them in effectively discharging their oversight role by coming up with policies aimed at curbing earnings management and encouraging effective working capital management.

Acknowledgements

We first acknowledge the almighty God for granting us strength and good health while writing this paper. We wish to thank officers at the Financial Reporting Center Kenya for their insightful comments on earnings management related issues in Kenya. We also thank the finance team at Total Kenya PLC for their exceptional insights on working capital management policies and earnings management practices.

References

- [1] Abuzayed, B. (2012). Working capital management and firms' performance in emerging markets: The case of Jordan. *International Journal of Managerial Finance*, 8(2), 155–179.
- [2] Aktas, N., and Petmezas, D. (2015). Is working capital management value-enhancing? Evidence from firm performance and investments. *Journal of Corporate Finance*, 30(2), 98–113.
- [3] Ali, A. (1994). The Incremental Information Content of Earnings, Working Capital from Operations, and Cash Flows. *Journal of Accounting Research*, 32(1), 61–74.
- [4] Asher, C., Mahoney, J., and Mahoney, J. (2005). Towards a Property Rights Foundation for a Stakeholder Theory of the Firm. *Journal of Management and Governance*, 9, 5–32.
- [5] Ashhari, Z. (2012). Working Capital Management, Firm Performance and Earnings Management of Public listed companies in Malaysia and Thailand. Universiti Putra Malaysia. <http://psasir.upm.edu.my/id/eprint/51759/>.
- [6] Awan, A., and Amin, M. (2014). Determinants of Capital Structure. *European Journal of Accounting Auditing and Finance Research*, 2(9), 22–41.
- [7] Baños-Caballero, S., García-Teruel, P. J., and Martínez-Solano, P. (2012). How does working capital management affect the profitability of Spanish SMEs? *Small Business Economics*, 39(2), 517–529.
- [8] Beneish, M. (2001). Earnings management: A perspective. *Indiana University*, 27(12), 3–17.
- [9] Bitrus, Y. P. (2011). The determinants of the demand for money in developed and developing countries. *Journal of Economics and International Finance*, 3 (15), 771– 779.
- [10] Burgstahler, D., and Dichev, I. (1997). Earning Management to avoid earnings decreases and losses. *Journal of Accounting and Economics*, 24(1), 99–126.
- [11] Chauhan, G. S., and Banerjee, P. (2018). Financial constraints and optimal working capital – evidence from an emerging market. *International Journal of Managerial Finance*, 14(1), 37–53. <https://doi.org/10.1108/IJMF-07-2016-0131>.
- [12] Chen, L.-J., and Chen, S.-Y. (2011). How the Pecking-Order Theory Explain Capital Structure. *Journal of International Management*, 9.
- [13] Chung, R., Firth, M., and Kim, J. (2005). FCF Agency costs, Earnings Management, and Investor Monitoring. *Corporate Ownership and Control*, 2(4).
- [14] Cyril, U., Ogbogu, N., and Emeka, N. (2020). Appraisal of the Impact of Earnings Management on Financial Performance of Consumer Goods Firms in Nigeria. *Journal of Finance and Accounting*. 8(1), 34-47.
- [15] Dechow, P. M., Hutton, A. P., Kim, J. H., and Sloan, R. G. (2012). Detecting earnings management: A new approach. *Journal of Accounting Research*, 50(2), 275–334.

- [16] Deloof, M. (2003). Does Working Capital Management Affect Profitability of Belgian Firms? *Journal of Business Finance and Accounting*, 30(3–4), 573–588.
- [17] Devers, C. E., Cannella, A. A., Reilly, G. P., and Yoder, M. E. (2007). Executive Compensation: A Multidisciplinary Review of Recent Developments. *Journal of Management*, 33(6), 1016–1072.
- [18] Ehrhart, K., and Zieget, J. (2005). Why Are Individuals Attracted to Organizations? *Journal of Management*, 31(6).
- [19] Elitzur, R., and Gaviols, A. (2003). Contracting, signaling, and moral hazard: A model of entrepreneurs, “angels,” and venture capitalists. *Journal of Business Venturing*, 18(1), 709–725.
- [20] Ellsberg, D. (1961). Risk, Ambiguity, and the Savage Axioms. Oxford University Press, 75(4), 643–669.
- [21] Frank, M. Z., and Goyal, V. K. (2003). Testing the pecking order theory of capital structure\$. *Journal of Financial Economics*, 32.
- [22] Gakure, R., Chelugot, K. J., Onyango, J.A. and Keraro, V. (2012) Working capital management and profitability of manufacturing firms listed at the Nairobi stock exchange. *Prime Journal of Business Administration and Management (BAM)*, 2(9), 680-686
- [23] Gill, A., Biger, N., and Mathur, N. (2010) The relationship between working capital management and profitability: Evidence from the United States. *Business and Economics Journal*, 4 (2), 1-9.
- [24] Hayn, C. (1995). The information content of losses. *Journal of Accounting and Economics*, 20(2), 125–153.
- [25] Healy, P. M., and Wahlen, J. M. (1999). A Review of the Earnings Management Literature and Its Implications for Standard Setting. *Accounting Horizons*, 13(4), 365–383.
- [26] Hennessy, C., and Whited, T. (2005). Debt Dynamics. *The Journal of Finance*, 60(3), 1129–1165.
- [27] Highhouse, S., Thornbury, E., and Little, I. (2007). Social-identity functions of attraction to organizations. *Organizational Behavior and Human Decision Processes*, 103(1), 134–146.
- [28] Iqbal, A., Zhang, X., and Jebran, K. (2016). Corporate governance and earnings management: A case of Karachi Stock Exchange listed companies. *Indian Journal of Corporate Governance*, 8(2), 103-118
- [29] Iraya, C., Mwangi, M., and Muchoki, G. (2015). Effects of corporate governance practices on earnings management of companies listed at the Nairobi Securities Exchange. *European Scientific Journal* 11,1, 1857 – 7881
- [30] Jensen, M. C., and Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- [31] Kahneman, D., and Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263.

- [32] Kerstein, J., and Rai, A. (2007). WORKING CAPITAL ACCRUALS AND EARNINGS MANAGEMENT. *Investment Management and Financial Innovations*, 4(2), 15.
- [33] Keynes, J.M. (1936). *The General Theory of Employment, Interest, and Money*, London: Macmillan.
- [34] Kieschnick, R., LaPlante, M., and Moussawi, R. (2006). Corporate working capital management: Determinants and Consequences. 31.
- [35] Kirmani, A., and Rao, A. R. (2000). No Pain, No Gain: A Critical Review of the Literature on Signaling Unobservable Product Quality. *Journal of Marketing*, 64(2), 66–79. <https://doi.org/10.1509/jmkg.64.2.66.18000>
- [36] Leary, M., and Roberts, M. (2010). The pecking order, debt capacity, and information asymmetry. *Journal of Financial Economics*, 95(3), 332–355.
- [37] Li, C., Yang, Y., and Cheng, K. (2014). Working capital management and estimations of discretionary accruals. *NTU Management Review*, 26(3), 63–92.
- [38] Madan, L.B. (2015). Creative Accounting Practices in the Indian Corporate Sector: An Empirical Study. *International Journal of Management Sciences and Business Research*, 4,1.
- [39] Makau, S. (2019). Effects of working capital management on performance of non-financial companies listed in NSE, Kenya, *European Journal of Business and Management*, 6(11), 195-205
- [40] Mansor, N. (2013). Corporate governance and earnings management: A study on the Malaysian family and non-family owned PLCs. *Procedia Economics and Finance*, 7(2), 221-229
- [41] Mathuva, D. (2015). The Influence of working capital management components on corporate profitability. *Science Alert*. <https://splus.strathmore.edu/handle/11071/3382>
- [42] Miller, T., and Triana, M. (2009). Demographic Diversity in the Boardroom: Mediators of the Board Diversity–Firm Performance Relationship. *Journal of Management Studies*, 46(5), 755–786.
- [43] Myers, S. (1984). The Capital Structure Puzzle. *The Journal of Finance*, 39(3), 574–592.
- [44] Pandey, I. M. (1997). *Financial management (10th ed)*. New Delhi: Vikas publishing House Pvt . Ltd
- [45] Peasnell, K. V., Pope, P. E., and Young, S. (2000). Accrual management to meet earnings targets: UK evidence pre-and post Cadbury. *The British Accounting Review*, 32(4), 415–445.
- [46] Prasad, P., Sivasankaran, N., and Shukla, A. (2019). Impact of deviation from target working capital on firm profitability: Evidence from India. *International Journal of Productivity and Performance Management*, 68(8), 1510–1527.
- [47] Riley, J. (2001). Silver Signals: Twenty-Five Years of Screening and Signaling. *Journal of Economic Literature*, 39(2), 432–478.
- [48] Ross, S. A. (1973). The Economic Theory of Agency: The Principal’s Problem. *Decision making under uncertainty*, 63(2), 6.

- [49] Rowe, W. L. (1982). Two criticisms of the agency theory. *Philosophical Studies*, 42(3), 363–378.
- [50] Roychowdhury, S. (2006). Earnings Management through Real Activities Manipulation. *Journal of Accounting and Economics*, 54.
- [51] Sheikh, N., and Wang, Z. (2011). "Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. *Managerial Finance*, 37(2), 117–133.
- [52] Shin, H., and Soenen, L. (1998). Efficiency of Working Capital and Corporate Profitability. *Financial Practice and Education*, 8(2), 37–45.
- [53] Smith, K. R. (1980). Profitability versus Liquidity Tradeoffs in Working Capital Management, in *Readings on the Management of Working Capital*. West Publishing Company, 549.
- [54] Spence, M. (1973). *Job Market Signaling*. Oxford University Press, 87(3), 355–374.
- [55] Stewart, H. (2011). Liquidity risk: A risk left to be tamed. *Journal of Risk Management in Financial Institutions*, 4(2), 13-19.
- [56] Stiglitz, J. (2002). Information and the Change in the Paradigm in Economics. *American Economic Review*, 92(3), 460–501.
- [57] Strebulaev, I. (2007). Do Tests of Capital Structure Theory Mean What They Say? *The Journal of Finance*, 62(4), 1747–1787.
- [58] Yoon, S., and Miller, G. (2002). Earnings management of seasoned equity offering firms in Korea. *The International Journal of Accounting*, 37(1), 57–78.
- [59] Zhang, Y., and Wiersema, M. (2009). Stock market reaction to CEO certification: The signaling role of CEO background. *Strategic Management Journal*, 30(7), 693–710.