

**EFFECT OF WORKING CAPITAL MANAGEMENT ON THE  
DIVIDEND PAYOUT OF FIRMS LISTED AT THE NAIROBI  
SECURITIES EXCHANGE**

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## **DECLARATION**

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

Signed:  Date: 8<sup>th</sup> December 2020

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This research project has been submitted for examination with my approval as the University Supervisor.

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## **LIST OF ABBREVIATIONS**

<b>ACP</b>	Average Collection Period
<b>AGM</b>	Annual General Meeting
<b>ANOVA</b>	Analysis of Variance
<b>APP</b>	Average Payable Period
<b>CCC</b>	Cash Conversion Cycle
<b>CMA</b>	Capital Markets Authority
<b>DIO</b>	Days Inventory Outstanding
<b>DPS</b>	Dividend Per Share
<b>EPS</b>	Earnings Per Share
<b>FCF</b>	Free Cash Flow
<b>ICP</b>	Inventory Conversion Period
<b>NSE</b>	Nairobi Securities Exchange
<b>OLS</b>	Ordinary Least Square
<b>SPSS</b>	Statistical Package for Social Sciences
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>VIF</b>	Variance Inflation Factors
<b>WCM</b>	Working Capital Management

## ABSTRACT

The art of balancing profitability and firm liquidity mostly determine the failure or success of a firm by how well it manages its disposable resources and how efficient a firm is with regards to managing operations of the firm. When a firm has an over investment in working capital it results to too much of the firm finances being committed thereby necessitating a firm to fund its operations using external borrowing that is costly while on the contrast under investment in working capital result to lower returns and slowed growth. With regards to the aforementioned, WCM may either acts a deterrent or a trigger to dividend payout and by using it as a study variable will aid in assisting to know the optimal financial decisions and practices of liquidity management.

The aim of this study was to ascertain the effect of WCM on dividend payout of firms quoted at the NSE. The population for the study was all the 63 companies quoted at the NSE. The independent variables for the study were WCM measured using current ratio, leverage represented by debt ratio, profitability represented by return on equity and firm size as represented by the natural logarithm of total assets. Dividend payout was the dependent variable and was represented by dividend per share dividend by earnings per share. Secondary data was acquired over a five-year time frame (January 2015 to December 2019) annually. Research design for this study was descriptive cross-sectional design while multiple linear regression was applied in determining the relationship between the variables. SPSS software was employed in the analysis of data. From the analysis an R-square value of 0.126 was produced which in other words mean that 12.6% of the changes in the dividend payout of listed firms at the NSE can be described by the independent variables studied while the other 87.4% in the changes in dividend payout is affiliated to other variables that outside the scope of this study. It was further found out that independent variables of this study weakly correlated with the dividend payout ( $R=0.355$ ). ANOVA outcomes revealed that the F statistic was significant at 5% level with a  $p<0.05$ . Henceforth, the model was appropriate in explanation of the association between the chosen variables. The findings also showed that profitability and firm size generated positive and statistically significant values. WCM and leverage generated positive but statistically insignificant values for this study. This study recommends that listed firms should enhance their profitability and their asset levels as this has a significant positive effect on dividend payout of listed firms. The study also recommends the need for future studies to focus on other factors that influence dividend payout among listed firms.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

In corporate finance there are three key corporate finance decisions and they comprise of Capital budgeting, capital structure and Working Capital Management (WCM) decisions. Due to the impact of working capital management on both the liquidity and profitability of the firm, it has been considered as a significant area of corporate finance which ought to be efficiently managed (Valipour, Javed & Kobra, 2012). Achievement of an optimum level of both profitability and liquidity is the primary goal of WCM and is dependent on availability of inventory, cash as well as other current assets. When WCM is efficient it can translate to high profits as well as dividends. Ahmed and Javad (2009) findings on their study pointed out that a relationship existed on the liquidity of the firm and the dividend payment behavior. Firms that have a stable liquidity position have the required cash flow to honor their current obligations as they fall due and remain with outstanding balances whose optional utility can be to compensate the investor by paying dividend as opposed to firms with poor liquidity.

Trade off theory, operating cycle theory and free cash flow theory are key theories that guide an effective working capital management. The theories put an emphasis on the need to have an optimum working capital level. Trade off theory by Myers (1984) was the anchor theory for this study as it laid foundation for WCM. The theory postulates that firms have to balance between the benefits of paying dividends and the risks associated with illiquidity. By issuing dividends, liquidity of a firm decreases and therefore this theory suggests a negative relationship between the study variables. Operating cycle theory by Weston and Eugene (1979) postulates that effective WCM will ensure smooth operating cycles which will in turn enhance firm profitability and in

essence dividend payout. The free cash flow theory by Jensen (1986) posits that when firms have made significant FCF and the firms do not have gainful investment projects available, firm managers tend to misuse the FCF, which consequently raises agency costs and reduces dividend payments.

Dividend payout among listed firms at the NSE has fluctuated over the years. In the year 2018, just two companies East African Breweries and Safaricom were able to pay their investors special dividend on top of the normal dividends. The only firm with a bonus issue was Nairobi Securities Exchange Ltd, but that was at the cost of dividends. For the firms making losses only Britam Holdings and Eveready announced plans of sharing their constrained fortunes with the investors (NSE report, 2019). There is therefore need to investigate whether working capital management influences dividend payout among firms listed at the NSE.

### **1.1.1 Working Capital Management**

Adeniji (2008) defined working capital as the money used by enterprises in their routine activities or operations. The working capital of a firm is ascertained as the surplus of short-term assets over short-term liabilities and it forms the necessary items for production of business merchandise for sale (Akinsulire, 2008). According to Finkler (2010), WCM refers to the management of current liabilities and assets to maximize results where current assets are those that will be spent or will be converted to cash in a span of a year and the obligations that will have to be paid within a year are the current liabilities. Thus implying that, working capital is short term assets and obligations.

Working capital is among the many imperative aspects finance managers ought to consider in making decisions relating to firms' usage of financial resources. Decisions regarding what resources and an optimal level of liabilities an organization ought to

have determine the ability to meet operational obligations (Harris, 2005). Organizations that are doing well strive to have an optimum level of revenues and tied-up capital. Holding too much inventory impacts negatively on profit levels while holding little stock could deter an organization from satisfactorily meeting client needs; this calls for a need to have an optimal level of working capital. These assertions imply that WCM is an integral feature of organizational operations and has a huge effect on both short-term and long term efficiency (Akoto, Awunyo & Angwor, 2013).

Cash Conversion Cycle (CCC) is an important parameter used in gauging the effectiveness of WCM decisions, it is the time between purchases for input resources and the time cash is collected from credit sales less the payables period. It is the time resources of the firm are tied up in the business cycle (Deloof, 2003). Moreover, the presence of WCM can also be measured through firm's periodic liquidity analysis. In this analysis, liquidity position can be recognized by the risk and return characteristics (Weinraub & Visscher, 1998). Therefore, the underlying factor of the risk and returns tradeoff is the working capital management decisions. In terms of liquidity analysis, firms can be seen in two ways; aggressive firms which are guided by the principle of high risk; and moderate or matching where there is lower risk and return strategies, also referred to as conservative firms (Pinches 1991). The current study will measure WCM as the ratio of current assets to current liabilities as used before by Beneish (2017).

### **1.1.2 Dividend Payout**

The proportion of the profits distributed to shareholders as dividends is referred dividend payout. It is computed as the firm's ratio of Dividend Per Share(DPS) to Earnings Per Share (EPS) (Brockington, 2013). There are two components that makes up the shareholders returns which are capital gain or dividend. Dividend payout ratio

influences these factors. When there is a low payout policy is adopted the share prices rises since the earnings growth rate is boosted. On the contrast when there is a high payout policy more dividends are paid hence the retained earnings are low and market price per share reduces hence translating to declined growth rate. Mostly the business life cycle stage defines the dividend policy that is adopted by firms. As indicated by Kapoor (2009) firms giving high growth for instance have lesser projects and more bigger cash flows which allows them to pay dividends.

The common form of dividend payment among the companies is cash dividend and this requires a business entity to have enough cash to pay the dividends when they have been declared. In case the company has insufficient funds, it is allowed to borrow the funds so that it is able to pay the dividends declared. The ultimate effect after the payment of dividends is the reduction in the reserve and cash accounts of the firm and in the long run, the total assets and the net worth of a business entity reduce after the declaration and payment of dividends. In the practice the price of the shares in the market tends to drop by the amount of cash that has been distributed as dividends (Kling, 2006).

In terms of operationalization, dividend payout can be operationalized in terms of either the payout ratio, dividend yield or dividends cover. Dividend yield indicates the returns made by a shareholder emanating from dividend only. It is determined by getting the dividends per share and dividing it by the stock price. Dividend payout is the portion of earnings that is distributed as dividends, where earnings are negative then it is meaningless. It is evaluated by figuring out the dividend per share of a company and dividing it by its earnings per share. Dividend cover measures the safety margin of payments of dividend as a result of an earnings drop and is worked out by finding the earnings for each share of the company and dividing it by its dividend per share

(Menamin, 2000). The current study will operationalize dividend payout as the ratio of DPS to EPS

### **1.1.3 Working Capital and Dividend Payout**

The tradeoff theory according to Myers (1984) stresses on the why it is important to balance the risk and return of equity and debt financing. According to Myers (1984) this may only be achievable by a cost benefit analysis of agency costs, tax savings, cost of bankruptcy and financial distress. In the finance field this theory has been used widely and not only in the capital structure and hence can be extended in explaining the optimal level of WCM where dividend payout is at an optimum level (Ashhari, 2012). This would imply having a balance between an optimal level of dividend payout and an ideal level of WCM. This would prevent the firm from the risks associated with illiquidity while at the same time taking advantage of the benefits of dividend payments.

Operating cycle theory as developed by Weston and Eugene (1979) suggests that when the time between the acquirement of inputs, the availability of the materials to the customers and inflows of cash final products sale shortened, the firm will be able to enhance its profitability. The cash conversion theory on the other hand as developed by Gitman (1974) suggests that firms should maintain short cash conversion periods which will enhance effective management of the firm's working capital which implies improved firm value. This theory has relevance to the current review for its idea that effective WCM will ensure smooth operating cycles which in turn enhance profitability and in essence dividend payout.

An important area that has not been adequately examined is Working Capital Management (WCM) as determinant of dividend payout. Working Capital Management entails the ability of a firm to manage its current assets and liabilities efficiently to

maximize ROA for its shareholders (Makori & Jagongo, 2013; Yakubu et al., 2017). When WCM is efficient it can translate to high profits as well as dividends. Ahmed and Javad (2009) in their study concluded that there existed a link between liquidity and behavior on the payment of dividends. Firms which have stable liquidity have cash at their disposal to settle short term obligations as they fall due leaving an outstanding balance whose optional utility can be to reward investors by issuing dividends as opposed to those with low liquidity.

#### **1.1.4 Firms Listed at the Nairobi Securities Exchange**

The NSE which was founded in 1954 is responsible for the listing of firms and issuing of securities bought and sold by individual and institutions both local and foreign through the services of stockbrokers or dealers. It is the fourth-largest in the sub-Saharan Africa. It focuses in the exchange of securities issued by the Government and listed firms. The mandate of NSE is to oversee its members and provide a trading platform for the listed securities. The NSE provides the main hub for trading in the secondary market. It provides a trading floor which though available is not commonly in use after being replaced by the automated trading system. Through a wide area network, members trade at the comfort of their offices. The system is efficient, transparent and can handle large volumes of transactions at the same time (NSE, 2019).

NSE as of September 2020 indicates that currently there are 65 companies trading at the NSE on it in 13 sectors. These sectors are agricultural (6 companies), Real estate investment trust (1 company), commercial and services (12 companies), telecommunication and technology (1 company), automobiles and accessories (1 company), Exchange traded funds(1 company), banking (12 companies), insurance (6 companies), investment (5 companies), investment Services (1 company),



manufacturing and allied (8 companies), construction and allied (5 companies) and energy and petroleum (6 companies) (NSE, 2020).

An examination done by Cytonn investments (2018) on the firms at NSE established that more than a third (20) of the firms has never paid dividends since 2014. It was also revealed that the DPS of 15 firms have been on a declining trend. This has also been related to the declining profits, business reorganization models and the quest of expansion. There has been conflicting information as to why certain firms listed on the NSE have been progressively hesitant to declare dividends or issue bonuses making shareholders frustrated. The current intends to establish whether working capital has an influence on the level of dividend payout among firms listed at the NSE.

## **1.2 Research Problem**

The art of balancing profitability and firm liquidity mostly determine the failure or success of a firm by how well it manages its disposable resources and how efficient a firm is with regards to managing operations of the firm. (Mathuva, 2015). This has led to many firms investing both resources and time seeking to establish a suboptimal level of operation where they will not have tied up their assets thereby compromising the investment quality. So as to ensure that firms investment continue to offer sustainable returns, they ought to maintain an optimal level of working capital. When firm has an over investment in working capital it results to too much of the firm finances being committed thereby necessitating a firm to fund its operations using external borrowing that is costly while on the contrast under investment in working capital result to lower returns and slowed growth. With regards to the aforementioned, WCM may either acts a deterrent or a trigger to dividend payout and by using it as a study variable will aid in

assisting to know the optimal financial decisions and practices of liquidity management (Beneish, 2017).

Firms listed at the NSE have on average been paying less dividends overtime. An examination done by Business Beat (2017) on the firms at NSE established that more than a third (20) of the firms have never paid dividends since 2014. It was also revealed that the DPS of 15 firms have been on a declining trend. This has also been related to the declining profits, business reorganization models and the quest of expansion. There has been conflicting information as to why certain companies on the Nairobi Securities Exchange (NSE), traded at an 8-year low in 2017, have been progressively hesitant to declare dividends or issue bonuses making shareholders frustrated. According to Cytonn report (2019), over the half of the listed firms (35) have not been paying dividend to their investors or they have decreased the DPS. There is therefore need to investigate whether working capital management influences dividend pay-out among firms listed at the NSE.

In the international context, studies have been carried out on the relationship between WCM and dividend policy but their findings have been inconsistent. Yakubu (2019) examined how dividend policy of listed non-financial firms in Ghana is impacted by WCM. The study revealed that WCM with respect to days inventory outstanding and cash conversion cycle have a positive association with dividend policy. Uguru et al. (2018) sought to establish how dividend payout was affected by WCM in the context of Nigerian Brewery firms. The findings revealed the WCM as measure by cash conversion cycle, inventory holding days and number of days' account receivable are outstanding had a significant positive effect on the dividend payout of the Nigerian brewery firms. Oladipupo and Ibadin (2013) while examining how working capital

management relates with dividend policy in Nigeria found out that WCM has no significant association with dividend payout policy.

Locally, most of the available studies have focused on other determinants of dividend payout and not WCM. Such Studies include Komora (2018) who focused on stock liquidity, Makenzi (2018) who focused on debt financing, Agwingi (2018) who focused on capital structure, Rangi (2019) who focused on ownership structure among others. Although there are two studies locally on the relationship between the study variables, they operationalized WCM differently and the findings are based on the proxies used. Bushuru et al. (2015) operationalized WCM using CCC while Olang and Okeng (2017) used cash management, inventory management and receivables management.

Although there are previous studies in this area, there exist conceptual, contextual and methodological gaps. Conceptually, most of the previous local studies have focused on other determinants of dividend payout without considering WCM, the few studies available on WCM on dividend payout have operationalized WCM differently and this might explain the differences in findings as they are dependent on the proxies used. The current study intends to operationalize WCM using current ratio as used before by Beneish (2017). Contextually, most of the available studies have been conducted in different contexts and therefore their findings cannot be generalized to represent firms listed at the NSE. Firms listed at the NSE have recorded decreased dividend payments overtime and therefore need to conduct a study in this context. Methodologically, most of the previous studies have not compared results across segments which the current study intends to do. These research gaps were the motivation for answering the research question: What is the effect of working capital management on the dividend payout of listed at the NSE?

### **1.3 Research Objective**

The objective of this study was to assess the effect of working capital management on the dividend payout of firms listed at the NSE.

### **1.4 Value of the Study**

The study is beneficial to the listed firms in understanding the linkage between the two variables which is crucial in having a strong team of management with varied perspectives and capabilities necessary for working capital management and operations streamlining and in creating trust among company stakeholders which will in essence enhance dividend payments.

This study's findings will further explain working capital and dividend theories and practices. It will also be an addition to the already documented information regarding the association between WCM and dividend payout of firms and also fill the gap on how these variables relate for future reference by other researchers.

This study's findings will be beneficial to the government and other policy makers, this study will be beneficial in aiding the formulation of policies and procedures that would steer listed firms in adopting working capital management practices that would improve their efficiency which in turn will contribute to enhanced dividend payout ratios.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The purpose of this section is to present a review of the theories onto which this study is based. Prior empirical work on this subject and other related areas will be reviewed in this chapter. Additionally, the determinants of dividend payout will be reviewed and a framework illustrating the relationship the variables have will be contained in the study.

### **2.2 Theoretical Framework**

This is a review of theories explaining the study phenomena. The theoretical reviews covered are the tradeoff theory, operating cycle theory and the free cash flow hypothesis.

#### **2.2.1 Tradeoff Theory**

This theory was pioneered by Myers (1984) and it is the anchor theory for the current study. The most important goal of a firm is the maximization of profits while making sure that a favorable level of liquidity is maintained. Attempting to raise profits by lowering the level of liquidity can be more harmful to a business (Shin & Soenen, 1998). The trade-off model describes how a firm determines its optimal cash holding level on the basis of a comparison between the marginal costs and benefits of holding cash. A heavy investment in current assets will certainly result in a low ROA of the entity since an overinvestment in these assets will yield insufficient returns.

The firm should set an acceptable level of current assets on the basis of all the factors involved in the daily conduct of operations. In this case, a choice has to be made by the firm on whether to adopt a conservative risk-return trade-off which constitutes a low-

risk and low-return approach or an aggressive policy which constitutes high-risk and high-return (Carpenter & Johnson, 1983). Knowing that profitability rank correlation is inversely related to liquidity rank correlation, the conclusion drawn from this is therefore is, a rise in liquidity lowers profitability levels (Pandey, 2010). In this study, the model will be useful in understanding and explaining the need for firms listed at the NSE to maintain favorable balances between WCM levels and dividend payments. Managing the trade-off between WCM benefits and profitability is a critical aspect of dividend decisions. The theory is relevant as it hypothesizes a positive relationship between WCM and dividend payments.

### **2.2.2 Operating Cycle Theory**

Operational cycle theory was developed from works of Weston and Brigham (1979). This theory is based on the firm's operational cycles. It recommends that the liquidity flow concept is produced by expanding the stability of potential liquidation esteem extent to include remuneration justification measures of a firm's operating activities. The incorporation of records receivables and stock turnover measure in operating cycle gives a clearer liquidity outlook management than reliance on the current as well as analysis of dissolvability's proportion markers (Weston & Brigham, 1979). Records receivable turnover points out the quantity of times in which the normal receivables venture of a firm is converted into money. Alterations of credit as well as accumulation strategy openly impact the normal exceptional debtors adjust put up regarding a company's annual deals.

Operating cycle is given by adding day's stock exceptional period to sales outstanding days. Average outstanding accounts receivable balance to the company's yearly sales is directly affected by any change in credit and collection policy. Increase in credit sales

leads to rise in receivables which results to lower receivables turnover and an extended receivable collection period which implies reduced level of liquidity. Higher present and basic analysis proportion is brought out in an unavoidable manner by the choice those outcomes in a company putting up bigger normal receivable speculation over a more drawn out day and age (Richards & Laughlin 1980).

The operating cycle hypothesis is criticized by Richards and Laughlin (1980) on the premise of neglecting liquidity necessities enforced on a company when measuring present liabilities commitments. However, this theory has relevance to this study for its idea that effective WCM will ensure smooth operating cycles which in turn enhance firm profitability and in essence dividend payments.

### **2.2.3 Free Cash Flow Hypothesis**

The notion of Free Cash Flow (FCF) was initially suggested by Jensen (1986), where FCF was described as net cash flow after subtracting all the needs of positive NPV ventures. Jensen (1986) submits that when there are surplus FCF, the severity of the agency conflict between firm shareholders and firm managers is higher. The reason for the conflict is that when there is excess cash in the firm, there is no need for the management to raise cash from the capital market. This gives firm management the freedom to spend/ invest without being monitored by capital providers as would have been the case if such funds were raised from the capital market. Shareholders would rather have such excess funds distributed back to them through share repurchase programs or as dividends if the growth opportunities for the firms are limited and the funds could not be prudently invested elsewhere. Management on the other hand would waste the surplus funds in unprofitable investments, administrative waste and managerial perks.

FCF hypothesis postulates that when firms have made significant FCF and the firms do not have gainful investment projects available, firm managers tend to misuse the FCF, which consequently raises agency costs. Critics of the FCF hypothesis claim that it nurtures short termism by discouraging investment that would bring profit in the long-run (Cornett, Hovakimian, Palia & Tehranian, 2009). This study is related to the FCF hypothesis because, based on the observation by Brush et al. (2000), managers' personal-interest inspires wastefulness and ineffectiveness when there is surplus FCF. This theory explains the impact that dividend payments has on WCM in that FCF help firms have funds for dividend payments which in turn influences WCM. This theory hypothesizes a positive association amongst WCM and dividend payments.

### **2.3 Determinants of Dividend Payout**

There are different determinants of dividend payout adopted by firms. These factors are applicable throughout different sectors of the economy. They include working capital management, financial leverage, profitability, firm size, ownership structure, legal restrictions and macro-economic variables.

#### **2.3.1 Working Capital Management**

Dividend payments are regarded as cash outflow by the firm. Although a company could have enough earnings to declare dividends, the cash available at a particular instance may not be adequate to pay dividends. The firm's cash position is therefore a critical factor to consider while making dividend payments; the capability of the firm to pay dividend increases with the firms' overall liquidity and cash position (Pandey, 2010).

Well established companies generally have higher liquidity which makes their dividends payment capability is higher. Such a company has little investments



opportunity since most of its funds are not held in the working capital thus its cash position is secure. On the other hand, growing firms face the problem of liquidity. When deciding on paying dividend the management need to factor in the effect of the payment on the firms' liquidity. When the effect is presumed to be negative to the liquidity position, in this case management will consider retaining the earnings as opposed to issuing dividend by following a conservative dividend policy (Pandey, 2010).

### **2.3.2 Financial Leverage**

Jensen (1986) and Stulz (2000) contends that financial leverage acts as a critical component in monitoring the behaviour of the management and minimizing costs that result from agency conflict and thus increasing value. Jensen (1976) posits that debt utilization might decrease the necessity for use of dividend to deal with the conflicts that arise from agency conflicts amongst the shareholders and management. Thus, the agency theory of free cash flow forecasts an inverse connection amongst debt and dividend.

In addition, agreements cover protection covenants which limit the pay-out. In line with Fauzi and Locke (2012), financial leverage can be defined as long-term debt deflated by equity book value. Henceforth, this research theorizes that financial leverage and dividend pay-out might be negatively linked.

### **2.3.3 Firm Profitability**

Profitability of a firm is perceived as a key firm's measure of the ability of paying dividends. According to Lintner (1956) the firm's pattern of paying dividends is determined by the earnings of that particular year and the dividends of the previous years. Baker and Powell (2000) noted that dividend payments are determined by the expected level of future earnings.

Gitman and Pruitt (2013) stated that the profits of the current and previous years greatly determine the ability of a company to pay dividends. In their New York review of firms listed in exchange, Baker and Powell (2000) noted that industry definite and projected future earnings level is the major dividend determinant. This finding was in line with that of Lintner, which argues that organizations with cyclical earnings that are more smooth more whereas those with less cyclical earnings smooth more (Abala, 2013). This implies that cyclical earnings have a big impact on dividend decisions.

#### **2.3.4 Firm Size**

A study by Eriotis (2005) noted that Greek firms annually distribute dividends based on each firm's target payout ratio, this is done based on the size of these firms and the amount of earnings distributed. The size of the firm plays a critical role in explaining the firm's dividend payout ratio (Lloyd, Jahera &Page, 1985). In this study, it was noted that larger firms are endorsed with a high financial maturity which gives them a higher access to funds in the capital markets. This reduces their reliance on the internally generated funds and increases the ratio of dividend payouts. A positive association can therefore be said to exist between firm size and dividend payout ratios.

Firms which are large are mostly mature and have a higher ability of paying dividends in comparison to smaller firms owing to the fact that they have easier accessibility of financial markets. Sawicki (2005) noted that dividend payment could be used as way of monitoring the performance of large firms. Because of separation of ownership in large firms the level of information asymmetry in those firms is high and this increases the inability of shareholders to oversee the activities of the management. Dividend payments solves this challenge because higher dividend payout prompts debt financing

that finally translate to monitoring because of presence of debenture holders and trade payables.

## **2.4 Empirical Review**

Research has been done both in the local scene and international scene supporting the association amongst working capital management and dividend payout, but these studies have yielded contradicting results.

### **2.4.1 Global Studies**

Oladipupo and Ibadin (2013) conducted a study aimed on examining the association between WCM practice and dividend payout ratio of manufacturing firms listed in Nigeria Stock Exchange. The dependent variable in this study was Dividend Payout Ratio whereas the independent variable was WCM. Debt ratio, current ratio and net trade cycle were used in measuring WCM. The study period spanned from 2002 to 2006 and the population were 12 manufacturing firms listed at NSE from which data was collected. Ordinary Least Square (OLS) regression method together with Pearson product moment correlation methods were used to analyze the collected data. From the findings it was established that profitability has a positive influence on dividend payout ratio and earnings growth rate negatively affected net trade cycle. At 95% significance level it was revealed that growth in earning, WCM and profitability had statistical insignificant impact on the dividend payout ratio. Therefore, this study established the WCM is not significant in making dividend policy decision.

Ahmad and Wardani (2014) conducted their study at the Indonesia Securities Exchange and examined the impact of fundamental factor on dividend policy for 98 quoted firms for the period 2006 to 2009. Logit regression was applied to evaluate the link between the independent and dependent variables. Acid test ratio was used as a test for liquidity.

A positive correlation between profitability and dividend policy was found and similar results were gotten for firm size on dividend policy, correlation between growth opportunities and dividend policy was not significant and the correlation between dividend policy for both liquidity and leverage was negative. The liquidity test used was different from the known stock liquidity measures; hence the outcomes may have been different with adoption of stock liquidity measures.

Khan and Ahmad (2017) carried out an empirical study with objective of finding out determinants of dividend pay-out among the manufacturing firms specifically Pharmaceutical companies that are listed at the Pakistan Stock Exchange. Leverage, firm size, liquidity, business risk, audit type, taxation, growth opportunities and profitability were used as independent variables while dependent variable was dividend pay-out. Multiple linear regressions was used to detect any correlation among the variables, the outcome revealed that liquidity is significant in dividend pay-out decision in addition to audit type, profitability and investment opportunities.

Uguru et al. (2018) sought to establish how dividend payout was affected by WCM in the context of Nigerian Brewery firms. The study period spanned through 2006 to 2014 and sampled firms were Guinness Nigeria Plc and Nigerian Breweries Plc. Ex-post-facto research design was adopted and in analyzing the data regression was used. WCM was measured using cash conversion cycle, inventory holding days and number of days' account receivable are outstanding. The findings revealed the WCM as measure by cash conversion cycle, inventory holding days and number of days' account receivable are outstanding had a significant positive effect on the achieving dividend payout of the Nigerian brewery firms.

Yakubu (2019) examined how dividend policy of listed non-financial firms in Ghana is impacted by WCM. Precisely the study examined the impact of Days Inventory Outstanding (DIO), firms' growth, profitability and Cash Conversion Cycle (CCC) on dividend policy. The study used OLS regression method to analyzed the data and the results stated that WCM with respect to DIO and CCC have a positive association with dividend policy and DIO had a significant effect on dividend policy. Further the findings revealed that the control variables that are firm growth and profitability had a positive connection with dividend policy although it was insignificant. From the findings the study concluded that WCM with respect to DIO is an important factor that affects the dividend policy decisions of a firm.

#### **2.4.2 Local Studies**

Bushuru et al. (2015) undertook a study on to establish how dividend payout ratio is impacted by WCM in firms listed at NSE in Kenya. The study period spanned through 2006 to 2013 and the study populace was all firms listed at NSE. Data was analyzed using Multiple regression analysis that revealed that WCM with respect to Accounts Payable Period (APP) and CCC positively and significantly relates with dividend payout ratio. On the contrast WCM with respect to Inventory Collection period (ICP) and Accounts Receivable Collection Period (ACP) had a negative and significant relationship with dividend payout ration

Olang, Akenga and Mwangi (2015) studied on the effect of liquidity on dividend payout for companies trading at the NSE. They wanted to identify the magnitude to which liquidity, profitability, working capital and cash flow affect dividend payout. They used data from the period from the period 2008 to 2012. Descriptive and inferential statistics was applied for data analysis. The study concluded that profitability has a significant

positive effect on dividend payout. Company's profits were found to influence dividend payout than cash flow and working capital. They also concluded that liquidity influence dividend payout positively.

Olang and Akenga (2017) endeavored to establish the effect that working capital had on dividend payout of firms listed at the NSE. The study used secondary data collected from published financials of the individual firms. According to the study findings it was shown that cash management positively influence dividend payout. Also inventory management and accounts receivables were seen to have a positive effect on dividend payout decisions. The recommendations of the study were that firms ought to make sure that there is proper management of cash, policies on debtors paying on time are implemented and inventory is properly managed in order for dividend payout of the firm to increase.

Komora (2018) sought to establish the impact of stock liquidity on dividend policies for banks listed at the NSE between 2013 and 2017. The stock turnover rate and dividend payout ratio were used as proxies for stock liquidity and dividend payout policy respectively. The research study also used some control variables of firm leverage and firm profitability which affect the firm's ability to pay dividends. Descriptive design method was used where data was pulled out from the CMA and NSE and was analyzed and the findings were that the stock turnover rate, the predictor variable was insignificant to the outcome variable dividend policy. The outcomes of the study support that stock liquidity cannot predict the banks' dividend payout policy at the NSE.

Rangi (2019) aimed on determining the effect of ownership structure on dividend payout of sugar manufacturing firms in Kenya. The target population was eleven operational sugar factories in Kenya. The study utilized secondary information that

entailed time series data gathered over a period of approximately 5 years; from 2013-2017. The study concluded that government ownership, institutional ownership, ROE and liquidity had weak positive correlation with dividend pay-out while foreign ownership was weakly negatively correlated with dividend payout.

## **2.5 Summary of the Literature Review and Research Gaps**

Several theories have explained the predicted relation between WCM and dividend payout. These are; tradeoff theory, free cash flow theory and operating cycle theory. A number of the key factors influencing dividend payout have been discussed. Various studies have been done globally and locally on WCM and dividend payout with findings being discussed in the chapter.

Although, literature on dividend payout policy is extensive, majority of studies have focused on determinants of dividend payout without addressing working capital management while there is also a stream of literature on WCM and other variables, which are different from dividend payout. Little has been undertaken on working capital management and dividend payout. The few studies available on the two study variables have been inconsistent. Although there are few studies that hypothesize the association amongst WCM and dividend payout, the findings have been inconsistent. The current study intends to contribute to this area by investigating the influence of WCM on dividend payout ratio among firms listed at the NSE.

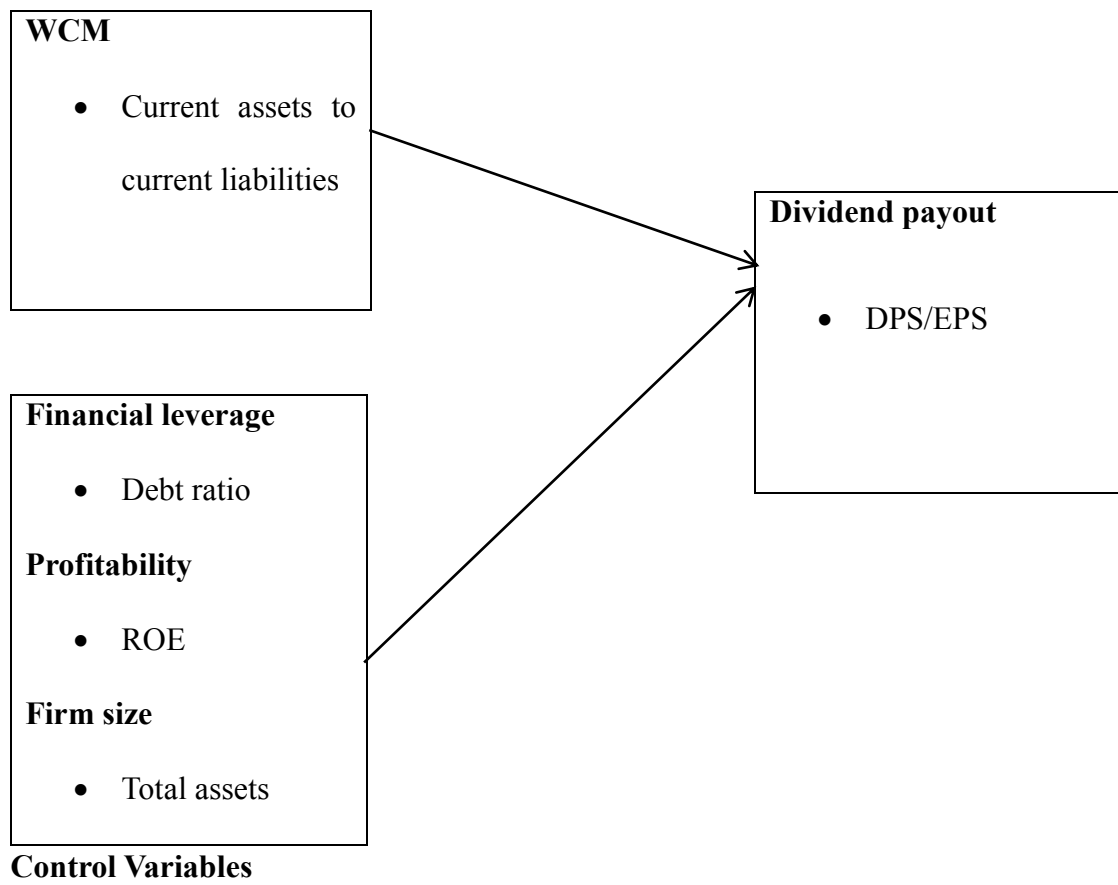
## **2.6 Conceptual Framework**

The model below exhibits the expected association amongst the study variables. The independent variable for the study was WCM measured as current assets divided by current liabilities. The control variables were financial leverage, profitability and firm size. The dependent variable was dividend payout.

**Figure 2.1: The Conceptual Model**

**Independent variable**

**dependent variable**



**Source: Researcher (2020)**



## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

In determining the effect of WCM on dividend payout, a study methodology was required in outlining the investigation. This chapter outlines the design, the data collection method, diagnostic tests and analysis methodologies.

### **3.2 Research Design**

The study adopted descriptive cross-sectional research design. Descriptive design was utilized since researcher wants to discover the current condition of the variables (Khan, 2008). The design is applicable since the researcher seeks to describe the nature of affairs as they are (Khan, 2008). It is also appropriate because the nature of the phenomenon being studied and how they relate is of major interest to him. Additionally, a descriptive research validly and accurately represents the variables which aids in providing a response to the research query (Cooper & Schindler, 2008).

### **3.3 Population**

Burns and Burns (2008), define a population as the number of all of the observations of interest within a particular collection such as people or events as described by an investigator. The population of the study comprised of the 63 firms with a listing at the NSE as at 31<sup>st</sup> December 2019 (see Appendix I). Due to the small size of the population, no sampling was conducted.

### **3.4 Data Collection**

Published annual reports of the firms being studied was drawn from Capital Markets Authority and individual firm's annual reports between January 2015 and December 2019 and provided secondary data which was recorded in a data collection sheet. The

specific data collected included DPS, EPS, total assets, total debt, net income, equity, current assets and current liabilities.

### **3.5 Data Analysis**

SPSS version 23 was used analyzing data. Findings were then quantitatively illustrated using graphs and tables. Descriptive statistics was the method that was used in summarizing the data obtained from the firms. Frequencies, measures of central tendency, percentages and dispersion were used in reporting the data which was in tabular forms. Multiple regressions, Pearson correlation coefficient of determination and ANOVA were applied for inferential statistics.

#### **3.5.1 Diagnostic Tests**

In determining the viability of the study model, the paper carried out several diagnostic tests, which included normality test, stationarity test, test for multicollinearity, test for homogeneity of variances and the autocorrelation test. Normality tests the presumption that the residual of the response variable have a normal distribution around the mean. The test for normality was done by the Shapiro-Wilk test. In the case where one of the variables was not normally distributed it was transformed and standardized using the logarithmic transformation method. Stationarity test was used to assess whether properties like mean, variance and autocorrelation structure vary with time. Stationarity was assessed using augmented Dickey Fuller test. In case, the data fails the assumption of stationarity, the study used robust standard errors in the model (Khan, 2008).

Autocorrelation measures how similar a certain time series is in comparison to a lagged value of the same time series in between successive intervals of time. This was measured by the Durbin-Watson statistic and incase the assumption was violated the study employed robust standard errors in the model. Multicollinearity occurs when an

exact or near exact relation that is linear is observed between two or several predictor variables. Variance Inflation Factors (VIF) and the levels of tolerance were used.

### 3.5.2 Analytical Model

The regression model below was used:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon.$$

Where: Y = Dividend payout as given by the ratio of dividend per share divided by earnings per share.

$\alpha$  = y intercept of equation.

$\beta_1, \beta_2, \beta_3, \beta_4$  = are the regression coefficients

$X_1$  = Working capital management given by the ratio of current assets to current liabilities on an annual basis

$X_2$  = Financial leverage as measured by ratio of total debt to total assets per annum

$X_3$  = Firm profitability given as the ratio of net income to equity per annum

$X_4$  = Firm size measured as the natural logarithm of total assets on an annual basis

$\varepsilon$  = error term

### 3.5.3 Tests of Significance

Parametric tests were carried out by the researcher in establishing the model's statistical significance and that of its parameters. The F-test will be used in the determination of the significance of the general model using the Analysis of Variance (ANOVA) model and a t-test will determine how significant the individual variables are.

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.1 Introduction

The focus of this chapter was to analyze the collected data in order to ascertain the impact of WCM on dividend payout of firms quoted at the NSE. The findings on the regression, descriptive and correlation analysis were shown in form of tables as per below sections.

### 4.2 Descriptive Analysis

The statistics produces a representation of the mean, minimum and maximum values of variables presented including the standard deviations. Table 4.1 below displays the characteristics of each variable. An output of each variable was extracted using SPSS software for a five-year time frame (2015 to 2019) on an annual basis.

**Table 4.1: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Dividend Payout	275	.0000	2.5743	.171749	.2951803
WCM	275	.3431	11.6481	2.415105	1.5828715
Leverage	275	.0246	1.4193	.502143	.2486335
Profitability	275	-.5700	.3900	.038376	.1067155
Firm size	275	6.8455	11.5766	9.280967	1.1529618
Valid N (listwise)	275				

**Source: Research Findings (2020)**

### 4.3 Diagnostic Tests

Diagnostic tests were completed before running the regression model. In relation to this study the diagnostic tests that were done include multicollinearity test, normality test, autocorrelation and heteroscedasticity tests.

### 4.3.1 Multicollinearity Test

Multicollinearity in statistics can be defined as an instance where more than one predictor variables are highly correlated. Strong correlations among independent variables are an undesirable situation. In situations where there is more than one linear relationship between some of the variables perfect multicollinear is said to exist.

**Table 4.2: Multicollinearity Test**

Variable	Collinearity Statistics	
	Tolerance	VIF
WCM	0.503	1.988
Financial leverage	0.310	3.226
Profitability	0.380	2.632
Firm size	0.706	1.416

**Source: Research Findings (2020)**

Multicollinearity test was carried out on the data collected. VIF value together with the Tolerance of the variable were applied. Results where tolerance value exceeds 0.2 and the value of VIF is below 10 means that multicollinearity is nonexistent. The analysis found a tolerance value exceeding 0.2 and a VIF value of below 10 meaning that there was no multicollinearity existing.

### 4.3.2 Normality Test

In testing normality, the researcher used the Shapiro-Wilk test and Kolmogorov-Smirnov tests. Below are the null hypotheses as well as the alternative hypotheses.

H<sub>0</sub>: the secondary data was not normal.

H<sub>1</sub> the secondary data is normal

A p-value more than 0.05, would lead to rejecting the null hypothesis and vice versa.

The table 4.3 below summarizes the outcomes.

**Table 4.3: Normality Test**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Dividend payout	.161	275	.300	.869	275	.853
SRI	.173	275	.300	.918	275	.822
Firm size	.178	275	.300	.881	275	.723
Leverage	.175	275	.300	.874	275	.812
Profitability	.176	275	.300	.892	275	.784

a. Lilliefors Significance Correction

Source: Research Findings (2020)

The data revealed a p- value of higher than 0.05 hence rejecting the null hypothesis and accepting the alternative hypothesis which means the normality test revealed the data was normally distributed. This data was henceforth suitable for usage in guiding parametric tests like ANOVA, regression analysis along with Pearson’s correlation.

#### 4.3.3 Heteroskedasticity Test

The error process may be Homoskedastic among cross-sectional units, but have different variances across units: this is called group wise Heteroscedasticity. The hettest command is used in calculating Breuch Pagan for group wise Heteroscedasticity among residuals.

**Table 4.4: Heteroskedasticity Test**


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**Modified Wald test for group wise heteroskedasticity  
in fixed effect regression model**

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H0:  $\sigma(i)^2 = \sigma^2$  for all i

chi2 (275) = 320.28

Prob>chi2 = 0.0629

---

Source: Research Findings (2020)

As per the Table 4.4 the p value is 0.0629 which show that the null hypothesis of Homoskedastic error terms is not rejected.

#### 4.3.4 Autocorrelation Test

Correlation of error terms were checked across time period by conducting a serial correlation test. In testing the autocorrelation in the Durbin Watson test was applied for serial correlation which is a major challenge in panel analysis of data and it has to be factored in so as to attain the right model requirement. A DW statistic of 1.715 implied there is no serial correlation as it was within the accepted limit of 1.5 to 2.5

**Table 4.5: Autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.355 <sup>a</sup>	.126	.113	.2779564	1.715

a. Predictors: (Constant), Firm size, Leverage, WCM, Profitability  
b. Dependent Variable: Dividend Payout

**Source: Research Findings (2020)**

#### 4.4 Correlation Analysis

To test the association existing amongst two variables a correlation analyses was done. A negative and positive correlation coefficient indicates a negative and positive correlation respectively. Pearson correlation test was applied in evaluating the correlation between dividend payout and the independent variables under study.

As per the findings of correlation analysis, it was acknowledged profitability and firm size have a positive and significant correlation with dividend payout as shown by ( $r = .315, p = .000$ ); and ( $r = .188, p = .002$ ) respectively. The study further revealed existence of a negative but not statistically significant correlation ( $r = -.093, p = .125$ ) amongst leverage and dividend payout. WCM showed a weak positive and insignificant association with dividend payout as shown by ( $r = .003, p = .956$ ).

**Table 4.6: Correlation Analysis**

		Dividend Payout	WCM	Leverage	Profitability	Firm size
Dividend Payout	Pearson Correlation	1				
	Sig. (2-tailed)					
WCM	Pearson Correlation	.003	1			
	Sig. (2-tailed)	.956				
Leverage	Pearson Correlation	-.093	.016	1		
	Sig. (2-tailed)	.125	.788			
Profitability	Pearson Correlation	.315**	-.089	-.423**	1	
	Sig. (2-tailed)	.000	.139	.000		
Firm size	Pearson Correlation	.188**	-.120*	-.039	.124*	1
	Sig. (2-tailed)	.002	.047	.521	.040	

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
\* . Correlation is significant at the 0.05 level (2-tailed)

c. Listwise N=275

Source: Research Findings (2020)

#### 4.5 Regression Analysis

Firms listed at the NSE dividend payout was regressed against four predictor variables; WCM, firm size, leverage and profitability. The results are as shown in table 4.7. In determining the influence of selected predictor variables on dividend payout, the research employed the coefficient of determination- R- squared. The study findings indicate that the value of the R-square was 0.126 implying that the selected predictor variables explain 12.6% of changes in dividend payout. The R-square column highlights the quality of prediction by the independent variables. The study revealed that the independent variables and the dependent variable have a weak relationship as shown by an R value of 0.355.



**Table 4.7: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.355 <sup>a</sup>	.126	.113	.2779564	1.715

a. Predictors: (Constant), Firm size, Leverage, WCM, Profitability  
b. Dependent Variable: Dividend Payout

**Source: Research Findings (2020)**

Table 4.8 provides the outcomes of the ANOVA. With P value being 0.000 and below the critical p value of 0.05, the model was considered statistically significant wholly and this is also explained by an F statistic of 9.752 which implies that the selected predictor variables are good predictors of dividend payout.

**Table 4.8: Analysis of Variance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.014	4	.753	9.752	.000 <sup>b</sup>
	Residual	20.860	270	.077		
	Total	23.874	274			

a. Dependent Variable: Dividend Payout  
b. Predictors: (Constant), Firm size, Leverage, WCM, Profitability

**Source: Research Findings (2020)**

T-test was applied in determining the significance of each variable individually as a predictor of dividend payout. P value indicated in the Sig. column shown the significance of the relationship of the variables. When P Value is below 0.05 and confidence level of at 95% it is considered to be a statistical significant measure. On the contrast when the p value falls above 0.05 it is concluded that there exist a statistically insignificant association amongst the dependent variable and the independent variable. Table 4.9 below summarizes the outcomes.

**Table 4.9: Model Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.284	.148		-1.921	.056
WCM	.009	.011	.050	.871	.385
1 Leverage	.057	.075	.048	.765	.445
Profitability	.887	.175	.321	5.059	.000
Firm size	.040	.015	.156	2.706	.007

a. Dependent Variable: Dividend Payout

**Source: Research Findings (2020)**

Following the outcomes above, profitability generated a t value of 5.059 while the firm size value of t was 2.706 both with P values less than 0.05 and this is interpreted to mean they are positive and statistically significant in the study. WCM and financial leverage generated positive but not statistically significant values as shown by p values greater than 5%.

The below regression equation was formulated:

$$Y = -0.284 + 0.887X_1 + 0.040X_2$$

Where,

Y = Dividend payout

X<sub>1</sub> = Profitability

X<sub>2</sub> = Firm size

From the above formulated regression model, the constant = -0.284 indicates that if selected dependent variables (WCM, firm size, leverage and profitability) were rated zero, firms' quoted at the NSE dividend payout would be -0.284. A rise in profitability with a unit would lead to a rise in dividend payout of firms quoted at the NSE by 0.887.

A unit increment in size of a firm would translate to an increment in dividend payout of companies listed at the NSE by 0.040 while rise in WCM and leverage would have a positive but not statistically significant impact on the dividend payout.

#### **4.6 Discussion of Research Findings**

The researcher sought to ascertain the influence of WCM on dividend payout of firms listed at the NSE. The independent variable was WCM which was measured using current ratio. The control variables characterized here were firm size, leverage and profitability. Dividend payout of the listed firms at the NSE was measured by dividend per share divided by earnings per share. All the predictor variables were analyzed independently in terms of their strength and direction in influencing the dependent variable.

The WCM as measured by current ratio exhibited a positive but not statistically significant relationship with dividend payout. Leverage has a negative correlation with dividend payout. This means that higher levels of debt as compared to assets of a firm lead to a reduction in dividend payout. The correlation is however not statistically significant. The study further established that profitability and firm size exhibit positive and significant correlation with dividend payout of quoted firms.

Regression analysis undertaken discovered that the model would predict 12.6% of variations in dividend payout of the firms. The other 87.4% however would be as a result of factors not in this model. The analysis showed that the alpha value was more than the critical value and therefore the relationship was significant. The calculated value of F was higher than F critical making the null hypothesis to be rejected. In conclusion the study outcomes were existence of a significant effect of the selected independent variables on dividend payout.

The study findings concur with Oladipupo and Ibadin (2013) who conducted a study aimed on examining the association between WCM practice and dividend payout ratio of manufacturing firms listed in Nigeria Stock Exchange. The dependent variable in this study was Dividend Payout Ratio whereas the independent variable was WCM. Debt ratio, current ratio and net trade cycle were used in measuring WCM. The study period spanned from 2002 to 2006 and the population were 12 manufacturing firms listed at NSE from which data was collected. Ordinary Least Square (OLS) regression method together with Pearson product moment correlation methods were used to analyze the collected data. From the findings it was established that profitability has a positive influence on dividend payout ratio and earnings growth rate negatively affected net trade cycle. At 95% significance level it was revealed that growth in earning, WCM had statistical insignificant impact on the dividend payout ratio.

This study in addition agrees with Ahmad and Wardani (2014) who conducted their study at the Indonesia Securities Exchange and examined the impact of fundamental factor on dividend policy for 98 quoted firms for the period 2006 to 2009. Logit regression was applied to evaluate the link between the independent and dependent variables. Acid test ratio was used as a test for liquidity. A positive correlation between profitability and dividend policy was found and similar results were gotten for firm size on dividend policy, correlation between growth opportunities and dividend policy was not significant and the correlation between dividend policy for both liquidity and leverage was negative.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter reviews the results from the previous chapter, it further derives conclusions as well as the limitations encountered during the study. In addition, recommends policies that can enforce to boost the expected dividend payout of companies. Finally, the chapter gives suggestions of areas where further studies can be done.

### **5.2 Summary of Findings**

Aim of researcher was seeking to investigate the effect of WCM on dividend payout of companies enlisted at the NSE. The independent variables were WCM, firm size, leverage and profitability. The research design was descriptive cross-sectional design. Data for all the CMA reports were used to retrieve secondary data and SPSS software 22 was used to analyze it. The period for this study was the five years from the year 2015 to 2019 for the 63 listed firms.

The Pearson correlation showed that WCM exhibited a positive and weak relationship with dividend payout as shown by a positive coefficient. The association was also not significant as shown by a p value more than 0.05. Leverage has a negative correlation with dividend payout. This means that higher levels of debt as compared to assets of a firm translate to a reduction in dividend payout. The association is however not statistically significant. The study further established that profitability and firm size exhibit positive and significant correlation with dividend payout of quoted firms.

From the regression analysis results, the findings revealed that 12.6% of changes in dividend payout of entities are described by the four selected predictor variables. It is implied that 87.4% of fluctuations in returns of entities trading in the NSE are

represented by other factors outside the scope of this study. The model wholly was said to be significant as the P value was below 0.05. This means that the selected independent variables significantly influence returns of enlisted entities at the NSE.

The regression model further established that WCM has no significant influence on dividend payout of quoted entities which implies that an increase in WCM will have a positive but not significant influence on dividend payout. It was also revealed that firm size has a significant positive influence on dividend payout of listed firms and this implies that an increment in assets held by a firm and current ratio will result to dividend payout increasing. Profitability was established to positively and significantly influence dividend payout implying that firms with more profits will on average have higher dividend payouts than firms with less debt.

### **5.3 Conclusion**

A conclusion can be drawn that dividend payout is significantly affected by firm size. WCM was established to have a non-significant positive effect on dividend payout of listed firms and hence this study concludes that WCM does not significantly influence dividend payout of listed firms. Profitability exhibited a positive effect on dividend payout and the effect is statistically significant and hence the conclusion that profitability has no significant influence dividend payout was derived.

Leverage was noted to have a positive but not statistically significant influence on dividend payout of firms enlisted at NSE meaning a rise in debt financing does not significantly influence dividend payout. This study therefore concludes that firms with more debt in their books will not on average pay less dividends than firms with less debt. Firm size was established to having a positive and statistically significant effect

on dividend payout and hence this study resolves that firm size does significantly influence dividend payout of firm listed in NSE.

Conclusion on this study is that the predictor variables of this study; WCM, firm size, leverage and profitability largely affect dividend payout of listed firms in NSE. The p value of the ANOVA summary also assists in concluding that these variables significantly affect the dividend payout. Since the independent variables of this have been found to explain 12.6% the dividend payout of listed firms in the NSE, it is implied that 87.4% of variation in dividend payout can therefore be related to factors that were not covered in the current study.

This finding concurs with Olang, Akenga and Mwangi (2015) who studied on the effect of liquidity on dividend payout for companies trading at the NSE. They wanted to identify the magnitude to which liquidity, profitability, working capital and cash flow affect dividend payout. They used data from the period from the period 2008 to 2012. Descriptive and inferential statistics was applied for data analysis. The study concluded that profitability has a significant positive effect on dividend payout. Company's profits were found to influence dividend payout than cash flow and working capital. They also concluded that liquidity influence dividend payout positively.

#### **5.4 Recommendations**

Firm size had a significant positive influence on dividend payout of NSE listed manufacturing firms. The research recommends that manufacturing firms should invest in both current and non-current assets that are required in running a firm as this will go a long way in enhancing dividend payout. Having operational equipment, functioning machines, motor vehicles as well as current assets will help firms enhance their profitability and in essence dividend payout.

Profitability was revealed to having a significant positive effect on dividend payout of listed firm's quoted at the NSE. The research therefore recommends firms to develop innovative measures aimed at enhancing their profitability as this will significantly contribute to dividend payouts. The listed firms should aim at maximizing revenue for every shilling invested while also reducing their operating expenses as this will enhance their net income leading to increased profitability and in essence dividend payout.

The study showed the influence of WCM on dividend payout as positive. Among the study recommendation which will help in policy change comprise of: NSE listed manufacturing firms should create a balance between the benefits of WCM and the risks associated with illiquidity such as bankruptcy. This would help them to take advantage of returns associated with WCM while at the same time cautioning them from the risks associated with lack of liquidity to meet maturing obligations.

### **5.5 Limitations of the Study**

The research scope was five years, 2015-2019. This is not proof that similar results will be found with a longer study period. Additionally it is not certain that the same findings will hold beyond 2019. A longer period would be more reliable since it will consider major events not catered for in this study.

One of these study limitations is data quality. It cannot be ascertained from the investigation whether findings show accurate facts from the situation. An assumption is made that the data is accurate. The measurements may change from a year to the next based on current conditions. The research used secondary data, which was in the public domain had already been obtained, unlike the first-hand information associated with primary data. The study considered selected determinants and not every factor that determines dividend payout of listed firms.



For analyzing the data, the regression model was used. Because of the limitations of the model like erroneous and misleading results when a variable changes, it is impossible for the researcher to generalize the findings with certainty. With the addition of more data in the model, the expected relation between the variables may fail to hold.

### **5.6 Suggestions for Further Research**

This study concentrated on WCM and dividend payout of firms quoted at the NSE and secondary data was relied on. Further research study that uses primary data such as questionnaires and interviews as well as covering all the listed firms is recommended.

The study did not exhaust all the independent variables influencing dividend payout of firms listed at the NSE and a recommendation is given that more variables like firm age, growth opportunities, corporate governance, industry practices, and other macro-economic variables. Establishing how every variable impacts dividend payout of listed firms will enable policy formulators know the tools that maximize shareholder wealth.

The study only focused on the latest five years because it consisted of only recent data. Additional studies may utilize a wider range which will be useful in confirming or disapproving the results. Finally, because of the limitations of the regression models, alternative models can be used in explaining the relation between variables.

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## APPENDICES

### Appendix I: Firms Listed at the NSE

	COMPANY	SECTOR	YEAR OF LISTING
1	<u>Deacons (East Africa)</u>	Consumer Services	2016
2	<u>Nairobi Business Ventures</u>	Consumer Services	2016
3	<u>Stanlib Fahari I-REIT</u>	Financials	2015
4	<u>Atlas African Industries</u>	Industrials	2014
5	<u>Flame Tree Group Holdings</u>	Basic Materials	2014
6	<u>Kurwitu Ventures</u>	Financials	2014
7	<u>Nairobi Securities Exchange</u>	Financials	2014
8	<u>Home Afrika</u>	Financials	2013
9	<u>I&amp;M Holdings</u>	Financials	2013
10	<u>CIC Insurance Group</u>	Financials	2012
11	<u>Umeme</u>	Utilities	2012
12	<u>Britam (Kenya)</u>	Financials	2011
13	<u>TransCentury</u>	Industrials	2011
14	<u>Co-operative Bank of Kenya</u>	Financials	2008
15	<u>Safaricom</u>	Telecommunications	2008
16	<u>Kenya Re-Insurance Corporation</u>	Financials	2007
17	<u>Liberty Kenya Holdings</u>	Financials	2007
18	<u>Equity Group Holdings</u>	Financials	2006
19	<u>Eveready East Africa</u>	Consumer Goods	2006
20	<u>KenGen Company</u>	Utilities	2006
21	<u>WPP Scangroup</u>	Consumer Services	2006
22	<u>Mumias Sugar Co</u>	Consumer Goods	2001
23	<u>ARM Cement</u>	Industrials	1997
24	<u>TPS Eastern Africa</u>	Consumer Services	1997
25	<u>Kenya Airways</u>	Consumer Services	1996
26	<u>National Bank of Kenya</u>	Financials	1994
27	<u>Sameer Africa</u>	Consumer Goods	1994
28	<u>Longhorn Publishers</u>	Consumer Services	1993
29	<u>Crown Paints Kenya</u>	Basic Materials	1992
30	<u>HF Group</u>	Financials	1992
31	<u>Uchumi Supermarkets</u>	Consumer Services	1992
32	<u>KCB Group</u>	Financials	1989
33	<u>Standard Chartered Bank Kenya</u>	Financials	1988
34	<u>Total Kenya</u>	Oil & Gas	1988

35	<u>Barclays Bank of Kenya</u>	Financials	1986
36	<u>Jubilee Holdings</u>	Financials	1984
37	<u>Express Kenya</u>	Consumer Services	1978
38	<u>Olympia Capital Holdings</u>	Industrials	1974
39	<u>East African Cables</u>	Industrials	1973
40	<u>Nation Media Group</u>	Consumer Services	1973
41	<u>Carbacid Investments</u>	Basic Materials	1972
42	<u>Diamond Trust Bank Kenya</u>	Financials	1972
43	<u>Eaagads</u>	Consumer Goods	1972
44	<u>East African Breweries</u>	Consumer Goods	1972
45	<u>East African Portland Cement</u>	Industrials	1972
46	<u>Kapchorua Tea Kenya</u>	Consumer Goods	1972
47	<u>Kenya Power &amp; Lighting</u>	Utilities	1972
48	<u>Williamson Tea Kenya</u>	Consumer Goods	1972
49	<u>NIC Group</u>	Financials	1971
50	<u>Unga Group</u>	Consumer Goods	1971
51	<u>Bamburi Cement</u>	Industrials	1970
52	<u>Stanbic Holdings</u>	Financials	1970
53	<u>B O C Kenya</u>	Basic Materials	1969
54	<u>BAT Kenya</u>	Consumer Goods	1969
55	<u>Centum Investment</u>	Financials	1967
56	<u>Limuru Tea</u>	Consumer Goods	1967
57	<u>Sasini</u>	Consumer Goods	1965
58	<u>Sanlam Kenya</u>	Financials	1963
59	<u>KenolKobil</u>	Oil & Gas	1959
60	<u>Kenya Orchards</u>	Consumer Goods	1959
61	<u>Standard Group</u>	Consumer Services	1954
62	<u>Kakuzi</u>	Consumer Goods	1951
63	<u>Car &amp; General (K)</u>	Consumer Services	1940

Source: Nairobi Securities Exchange (2020)



## Appendix II: Research Data

<b>Company</b>	<b>Year</b>	<b>DPR</b>	<b>WCM</b>	<b>Profitability</b>	<b>Firm size</b>	<b>Leverage</b>
Athi river mining	2019	0.6494	3.9703	-0.1600	10.6304	0.5125
	2018	0.6452	3.9512	-0.0600	10.7081	0.4556
	2017	0.7353	3.9318	0.1500	10.7155	0.6756
	2016	0.7813	3.9120	0.0400	10.5672	0.7448
	2015	0.8029	3.8918	0.0500	10.4728	0.7232
Bamburi	2019	0.2959	3.9120	0.1400	10.6604	0.2742
	2018	0.3463	3.8918	0.1500	10.5285	0.3254
	2017	0.3030	3.8712	0.1200	10.6222	0.2887
	2016	0.4020	3.8501	0.0900	10.6033	0.2953
	2015	0.4587	3.8286	0.1100	10.6336	0.2754
Car & General	2019	0.1095	4.3944	0.0100	9.9731	0.6428
	2018	0.1024	4.3820	0.0200	9.9870	0.6662
	2017	0.0965	4.3694	0.0200	9.9537	0.6639
	2016	0.1096	4.3567	0.0400	9.9113	0.6526
	2015	0.1087	4.3438	0.0600	9.8389	0.6372
Carbacid	2019	0.5983	3.1781	0.1300	9.5194	0.1158
	2018	0.5072	3.1355	0.1200	9.4888	0.1323
	2017	0.4762	3.0910	0.1300	9.4726	0.1656
	2016	0.4516	3.0445	0.1700	9.4037	0.1472
	2015	0.3627	2.9957	0.2200	9.3433	0.1270
Crown Berger	2019	0.0400	2.0794	0.0400	9.7688	0.7007
	2018	0.0500	1.9459	0.0500	9.7041	0.6912
	2017	0.0100	1.7918	0.0100	9.6570	0.7020
	2016	0.0100	1.6094	0.0100	9.5858	0.6503
	2015	0.0700	1.3863	0.0700	9.4691	0.5377
East Africa Cables	2019	0.0000	3.5835	-0.1000	9.8475	0.7331
	2018	0.0000	3.5553	-0.0800	9.8779	0.6613
	2017	0.0200	3.5264	0.0200	9.9235	0.5954
	2016	0.3900	3.4965	0.3900	9.8970	0.6081
	2015	0.0600	3.4657	0.0600	9.8331	0.5497
E.A Portland	2019	0.0000	3.9703	-0.0400	10.4371	0.3826
	2018	0.1500	3.9512	0.1500	10.4447	0.3554
	2017	0.3100	3.9318	0.3100	10.3638	0.4025
	2016	0.0000	3.9120	-0.0200	10.1964	0.5734
	2015	0.1100	3.8918	0.1100	10.2077	0.5605
Eveready	2019	0.0000	3.9120	0.3500	8.8880	0.2890
	2018	0.7874	3.8918	-0.1800	9.0346	0.5506
	2017	0.0000	3.8712	0.3900	9.1795	0.4309

<b>Company</b>	<b>Year</b>	<b>DPR</b>	<b>WCM</b>	<b>Profitability</b>	<b>Firm size</b>	<b>Leverage</b>
	2016	0.0000	3.8501	-0.1900	8.9685	0.7651
	2015	0.0000	3.8286	0.0500	8.9734	0.5803
<b>Kakuzi</b>	2019	0.1000	4.3944	0.1000	9.7594	0.2478
	2018	0.1100	4.3820	0.1100	9.7045	0.2405
	2017	0.1200	4.3694	0.1200	9.4807	0.3577
	2016	0.0400	4.3567	0.0400	9.5863	0.2284
	2015	0.0500	4.3438	0.0500	9.5703	0.2211
<b>Kengen</b>	2019	0.0200	3.1781	0.0200	11.5766	0.5144
	2018	0.0200	3.1355	0.0200	11.5650	0.5296
	2017	0.1900	3.0910	0.1900	11.5347	0.5866
	2016	0.0200	3.0445	0.0200	11.3983	0.6934
	2015	0.0300	2.9957	0.0300	11.2757	0.6071
<b>Kenolkobil</b>	2019	0.0900	2.0794	0.0900	10.3820	0.5346
	2018	0.0900	1.9459	0.0900	10.3838	0.5924
	2017	0.1000	1.7918	0.1000	10.2400	0.5076
	2016	0.0400	1.6094	0.0400	10.3787	0.6935
	2015	0.0200	1.3863	0.0200	10.4490	0.7629
<b>KPLC</b>	2019	0.0200	2.3571	0.0200	11.5336	0.7952
	2018	0.0200	2.2968	0.0200	11.4735	0.7848
	2017	0.0300	2.6813	0.0300	11.4401	0.6970
	2016	0.0400	2.3480	0.0400	11.3442	0.6677
	2015	0.0300	2.6204	0.0300	11.2484	0.6829
<b>KQ</b>	2019	0.0000	1.3164	-0.0600	11.1648	1.3073
	2018	0.0000	1.1960	-0.1900	11.1922	1.2291
	2017	0.0000	1.1739	-0.1900	11.2602	1.0328
	2016	0.0000	1.2056	-0.0200	11.1722	0.8101
	2015	0.0000	1.2276	-0.0400	11.0888	0.7456
<b>Safaricom</b>	2019	0.5688	1.0562	0.3000	11.2087	0.1556
	2018	0.9460	1.0962	0.2400	11.2019	0.1738
	2017	0.7737	1.1120	0.2000	11.1958	0.3356
	2016	0.8656	1.1601	0.1700	11.1290	0.3222
	2015	0.8229	1.1233	0.1400	11.1101	0.3771
<b>Sameer</b>	2019	0.3888	4.5106	0.0000	9.4727	0.3930
	2018	0.4301	6.2963	-0.2000	9.5173	0.4443
	2017	0.4566	10.0893	-0.0100	9.5742	0.3845
	2016	0.4000	4.2579	-0.0200	9.5863	0.3275
	2015	0.3810	8.8431	0.1200	9.5645	0.2696
<b>Sasini</b>	2019	0.0200	1.1065	0.0200	10.1204	0.1425
	2018	0.0300	1.1464	0.0300	10.2258	0.1037
	2017	0.1300	1.3815	0.1300	10.2053	0.0904

<b>Company</b>	<b>Year</b>	<b>DPR</b>	<b>WCM</b>	<b>Profitability</b>	<b>Firm size</b>	<b>Leverage</b>
	2016	0.3800	1.5359	0.3800	10.1740	0.1881
	2015	0.0100	1.4639	0.0100	9.9569	0.2950
Standard Group	2019	0.0000	1.2832	-0.0500	9.6493	0.5820
	2018	0.0500	1.1679	0.0500	9.6439	0.5287
	2017	0.0000	1.3048	-0.0700	9.6390	0.5689
	2016	0.0500	1.1971	0.0500	9.6129	0.4618
	2015	0.0500	1.1606	0.0500	9.6194	0.5065
Total Kenya	2019	0.0700	1.5853	0.0700	10.5799	0.4366
	2018	0.0600	0.9464	0.0600	10.5585	0.4653
	2017	0.0500	1.0851	0.0500	10.5343	0.4858
	2016	0.0400	1.0237	0.0400	10.5124	0.4953
	2015	0.0300	1.4691	0.0300	10.6019	0.6154
TransCentury	2019	0.0000	0.9836	-0.2100	10.2728	1.0060
	2018	0.0000	1.3339	-0.0500	10.2767	0.7975
	2017	0.0000	1.5404	-0.0500	10.2767	0.9662
	2016	0.0000	1.2591	-0.0800	10.3388	0.3658
	2015	0.0300	1.1154	0.0300	10.3773	0.4455
Uchumi	2018	0.0000	4.1442	-0.5700	9.6992	1.4193
	2017	0.0000	7.9538	-0.5300	9.8071	0.8674
	2016	0.0800	8.4745	0.0800	9.8379	0.5202
	2015	0.0600	3.3451	0.0600	9.7461	0.4751
Unga Group	2019	0.1477	0.9506	0.0000	10.0115	0.4664
	2018	0.6623	1.0966	0.0600	9.9638	0.3808
	2017	0.2315	1.4218	0.0700	9.9381	0.3826
	2016	0.1898	1.4858	0.0600	9.9045	0.3937
	2015	0.2055	1.7358	0.0400	9.9089	0.4708
Nation Media	2019	0.1200	1.2374	0.1200	10.0539	0.2786
	2018	0.1300	0.9502	0.1300	10.0854	0.2851
	2017	0.1600	0.9346	0.1600	10.1037	0.2948
	2016	0.2000	0.9684	0.2000	10.0772	0.2659
	2015	0.2300	1.2242	0.2300	10.0586	0.2797
BOC Kenya	2019	1.5476	1.6434	0.0200	9.3480	0.2771
	2018	2.5743	1.0320	0.0600	9.3471	0.2403
	2017	0.8037	0.9226	0.0600	9.3657	0.2615
	2016	0.6833	0.8973	0.1000	9.3618	0.2405
	2015	0.4422	1.1574	0.0800	9.4205	0.2165
EABL	2019	0.7650	0.5021	0.1200	10.8239	0.8202
	2018	0.5664	0.4648	0.1600	10.7906	0.8878
	2017	0.4508	0.5627	0.1400	10.8257	0.8005
	2016	0.6625	1.4005	0.1100	10.7984	0.8552

<b>Company</b>	<b>Year</b>	<b>DPR</b>	<b>WCM</b>	<b>Profitability</b>	<b>Firm size</b>	<b>Leverage</b>
	2015	0.6691	1.0634	0.1100	10.7613	0.8684
Eaagads Ltd	2018	0.1700	0.6245	0.1700	8.9651	0.0783
	2017	0.0500	0.7402	0.0500	8.8815	0.0910
	2016	0.0100	0.6930	0.0100	8.6334	0.1478
	2015	0.0000	0.5634	-0.0900	8.6491	0.1914
Williamson Tea	2019	0.1000	0.6361	0.1000	9.9780	0.2388
	2018	0.0000	2.2050	-0.0300	9.9224	0.2651
	2017	0.0500	2.5238	0.0500	9.9509	0.2212
	2016	0.0100	3.3740	0.0100	9.9324	0.2289
	2015	0.0900	2.8332	0.0900	9.9314	0.2535
Kapchorua Tea	2019	0.0000	3.0200	-0.0300	9.3076	0.3028
	2018	0.0500	4.4016	0.0500	9.3313	0.2939
	2017	0.0000	2.3280	-0.0100	9.2974	0.2801
	2016	0.0700	1.7710	0.0700	9.2854	0.2843
	2015	0.0900	1.8952	0.0900	9.3177	0.3822
Limuru Tea	2019	0.0000	2.1309	-0.0700	8.4183	0.2833
	2018	0.0000	0.9554	-0.0800	8.4505	0.2710
	2017	0.0100	1.2192	0.0100	8.4966	0.2674
	2016	0.0000	1.1561	0.0000	8.5297	0.2358
	2015	0.0800	1.1158	0.0800	8.5353	0.2410
Express	2019	0.0000	1.0780	-0.0700	8.5741	1.1388
	2018	0.0000	1.5236	-0.2500	8.5793	0.9389
	2017	0.0000	1.4882	-0.1400	8.6453	0.7282
	2016	0.0000	1.2774	-0.1600	8.6794	0.6733
	2015	0.0000	1.2997	0.0000	8.6817	0.5869
TPS	2019	0.0100	1.1003	0.0100	10.2427	0.4759
	2018	0.0000	0.6298	0.0000	10.2300	0.4368
	2017	0.0000	1.5950	-0.0300	10.1991	0.3876
	2016	0.0100	1.4871	0.0100	10.2025	0.3467
	2015	0.0300	1.2846	0.0300	10.2078	0.3458
Scan Group	2019	0.0400	1.4099	0.0400	10.1386	0.3484
	2018	0.0300	0.3431	0.0300	10.1299	0.3469
	2017	0.0200	0.6717	0.0200	10.0958	0.3099
	2016	0.0400	0.7048	0.0400	10.1233	0.3569
	2015	0.0600	1.0983	0.0600	10.1053	0.3686
Business Venture	2019	0.0000	1.0861	-0.2300	8.1575	0.6834
	2018	0.0300	2.3685	0.0300	8.1915	0.6793
	2017	0.0300	2.2713	0.0300	8.0483	0.5936
	2016	0.1000	1.8378	0.1000	7.9003	0.7626
	2015	0.0300	2.3583	0.0300	7.6541	0.7537

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Home Africa	2019	0.0000	2.5221	-0.0400	9.6511	1.0875
	2018	0.0000	1.3097	-0.0400	9.5944	1.0535
	2017	0.0000	1.1747	-0.1000	9.5868	1.0108
	2016	0.0000	1.1699	0.0000	9.5704	0.9063
	2015	0.0300	1.1666	0.0300	9.4864	0.8892
Kurwitu	2019	0.0000	1.1380	-0.0800	8.1475	0.5301
	2018	0.0000	0.4479	-0.0300	8.7080	0.5264
	2017	0.0000	1.0423	0.0000	8.7810	0.5370
	2016	0.0000	1.0590	0.0000	8.7119	0.4524
	2015	0.0000	1.1121	-0.1100	8.1094	0.4029
NSE	2019	0.1000	1.1251	0.1000	9.3239	0.0457
	2018	0.0900	1.0611	0.0900	9.3040	0.0748
	2017	0.1600	1.1587	0.1600	9.2829	0.0748
	2016	0.1900	1.1441	0.1900	9.2266	0.0843
	2015	0.2300	1.1447	0.2300	9.0604	0.3640
BAT	2019	0.8568	1.0939	0.1900	10.2506	0.5597
	2018	0.7794	1.0332	0.2600	10.2672	0.5245
	2017	1.1691	1.2705	0.2700	10.2714	0.5261
	2016	0.8541	1.2776	0.2300	10.2613	0.5548
	2015	0.9988	1.1715	0.2200	10.2301	0.0246
Mumias	2018	0.0600	1.1658	0.0600	10.4282	0.7179
	2017	0.0000	1.5334	-0.2300	10.3103	0.7097
	2016	0.0000	1.6234	-0.1200	10.3722	0.6361
	2015	0.0000	1.6385	-0.0500	10.4359	0.5670
Longhorn Publishers Limited	2019	0.0600	1.6048	0.0600	9.2692	0.4912
	2018	0.0500	1.5050	0.0500	9.2711	0.4925
	2017	0.0900	1.2653	0.0900	8.8384	0.4482
	2016	0.1300	1.2875	0.1300	8.8765	0.4229
	2015	0.1700	1.2781	0.1700	8.8357	0.4367
Deacons (East Africa) PLC	2018	0.0000	1.2225	-0.1200	9.3583	0.4861
	2017	0.0400	1.1691	0.0400	9.3955	0.3917
	2016	0.0300	1.1254	0.0300	9.2927	0.2804
	2015	0.0000	1.0996	-0.0400	8.7413	0.5297
ABSA	2019	0.0498	1.0417	0.0498	8.2674	0.4680
	2018	0.0389	1.2396	0.0389	8.3160	0.4500
	2017	0.0387	2.2624	0.0387	8.3543	0.4420
	2016	0.0360	2.9326	0.0360	8.3823	0.3410
	2015	0.0284	3.5336	0.0284	8.4142	0.2830

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Diamond Trust Bank	2019	0.0498	2.5000	0.0498	8.2674	0.4000
	2018	0.0389	3.1447	0.0389	8.3160	0.3180
	2017	0.0387	2.5063	0.0387	8.3543	0.3990
	2016	0.0360	2.5000	0.0360	8.3823	0.4000
	2015	0.0284	2.9851	0.0284	8.4142	0.3350
Standard Chartered Bank Kenya Ltd	2019	0.0449	3.0675	0.0449	8.2908	0.3260
	2018	0.0446	2.9586	0.0446	8.3432	0.3380
	2017	0.0471	2.6596	0.0471	8.3473	0.3760
	2016	0.0278	2.9674	0.0278	8.3692	0.3370
	2015	0.0374	2.1739	0.0374	8.3988	0.4600
NIC Bank	2019	0.0417	1.4728	0.0417	8.0348	0.6790
	2018	0.0414	2.4155	0.0414	8.0830	0.4140
	2017	0.0427	1.3569	0.0427	8.1637	0.7370
	2016	0.0386	1.8315	0.0386	8.2195	0.5460
	2015	0.0364	2.5641	0.0364	8.2291	0.3900
National Bank	2018	0.0140	2.9412	0.0140	7.9661	0.4400
	2017	0.0074	2.3810	0.0074	8.0894	0.4200
	2016	0.0000	2.6316	-0.0096	8.0964	0.3800
	2015	0.0012	4.3478	0.0012	8.0611	0.2300
KCB Bank	2019	0.0378	4.9505	0.0378	8.4839	0.2020
	2018	0.0396	2.7174	0.0396	8.5088	0.3680
	2017	0.0454	3.0211	0.0454	8.5763	0.3310
	2016	0.0391	3.2468	0.0391	8.6700	0.3080
	2015	0.0407	3.5714	0.0407	8.7031	0.2800
I&M Bank	2019	0.0400	4.7393	0.0400	7.2905	0.2110
	2018	0.0420	2.1739	0.0420	8.0426	0.4600
	2017	0.0230	2.9412	0.0230	8.1377	0.3400
	2016	0.0410	3.2895	0.0410	8.1698	0.3040
	2015	0.0410	3.4364	0.0410	8.2152	0.2910
HFCK	2019	0.0189	2.9674	0.0189	7.6094	0.3370
	2018	0.0185	2.6596	0.0185	7.6698	0.3760
	2017	0.0162	1.4728	0.0162	7.7817	0.6790
	2016	0.0212	2.4155	0.0212	7.0011	0.4140
	2015	0.0113	1.3569	0.0113	7.0000	0.7370
Equity Bank	2019	0.0560	1.8315	0.0560	8.3341	0.5460
	2018	0.0560	2.5641	0.0560	8.3769	0.3900
	2017	0.0670	2.9412	0.0670	8.4411	0.3400
	2016	0.0520	2.2727	0.0520	8.5332	0.4400

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	2015	0.0420	1.6556	0.0420	8.5795	0.6040
Co-operative Bank	2019	0.0400	2.0833	0.0400	8.3003	0.4800
	2018	0.0420	2.5000	0.0420	8.3596	0.4000
	2017	0.0330	2.9412	0.0330	8.4513	0.3400
	2016	0.0340	4.1667	0.0340	8.5309	0.2400
	2015	0.0380	4.3478	0.0380	8.5441	0.2300
Stanbic	2019	0.0233	4.9505	0.0233	7.6698	0.2020
	2018	0.0290	2.7174	0.0290	7.7817	0.3680
	2017	0.0320	3.0211	0.0320	8.2339	0.3310
	2016	0.0254	3.2468	0.0254	8.2979	0.3080
	2015	0.0219	3.5714	0.0219	8.3115	0.2800
Jubilee	2019	0.0212	1.7659	0.0212	6.8455	0.7143
	2018	0.0097	2.9085	0.0097	6.8953	0.8333
	2017	0.0330	5.9581	0.0330	7.7397	0.8750
	2016	0.0340	11.6481	0.0340	7.8129	0.8750
	2015	0.0290	7.5035	0.0290	7.8152	0.8750
Pan Africa	2019	0.0265	2.1231	0.0265	6.9446	0.8750
	2018	0.0171	3.2366	0.0171	6.9849	0.7143
	2017	0.0126	1.0823	0.0126	7.0103	0.7143
	2016	0.0162	2.2792	0.0162	7.0192	0.7143
	2015	0.0105	1.3029	0.0105	7.0159	0.7500
Kenya Re	2019	0.0546	1.5945	0.0546	7.0138	0.8750
	2018	0.0489	1.4376	0.0489	7.1349	0.7778
	2017	0.0411	1.0129	0.0411	7.2366	0.7778
	2016	0.0493	0.9113	0.0493	7.3015	0.7778
	2015	0.0375	2.3548	0.0375	7.3503	0.7500
Liberty	2019	0.3604	3.0471	0.0269	7.2804	0.7500
	2018	0.3634	3.0008	0.0219	7.2931	0.7500
	2017	0.3731	2.8067	0.0126	7.3312	0.8889
	2016	0.3900	2.9726	0.0123	7.3436	0.7778
	2015	0.3787	2.8340	0.0071	7.3507	0.7500
Britam	2019	0.3920	3.2485	0.0330	7.6641	0.9091
	2018	0.3983	6.2517	0.0410	7.7162	0.9091
	2017	0.4046	2.0761	0.0390	7.7920	0.8889
	2016	0.4109	2.0507	0.0310	7.8336	0.8750
	2015	0.4172	2.6737	0.0390	7.9186	0.8750
CIC	2019	0.7917	2.8280	0.0498	8.2674	0.8750
	2018	0.8041	2.9102	0.0389	8.3160	0.8750
	2017	0.8085	3.4630	0.0387	8.3543	0.4000

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	2016	0.8195	3.6012	0.0360	8.3823	0.5000
	2015	0.3580	4.3590	0.0284	8.4142	0.5714