

**RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT AND
DIVIDEND PAYOUT OF MANUFACTURING FIRMS LISTED AT THE
NAIROBI SECURITIES EXCHANGE**

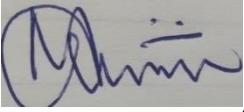
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**A RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
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DECLARATION


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.

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

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DEDICATION

This research project is dedicated to my family, who have always encouraged and supported me throughout my life and during the entire period of my study as well as successful completion of this course. I wish to specifically thank my late dad ASP Ikunyua, mum Agnes, my son Bruno Asher, my sister Evelyn, my uncle Mugambi, my friends Shane, Evelyn, Elly and Dan among others.

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To God, who made all this possible. All glory is unto him.

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LIST OF ABBREVIATIONS

ACP	Average Collection Period
ANOVA	Analysis of Variance
APP	Average Payable Period
CCC	Cash Conversion Cycle
CMA	Capital Markets Authority
DIO	Days Inventory Outstanding
DPS	Dividend Per Share
EPS	Earnings Per Share
ICP	Inventory Conversion Period
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square
SPSS	Statistical Package for Social Sciences
VIF	Variance Inflation Factors
WC	Working Capital
WCM	Working Capital Management

ABSTRACT

Corporate finance focuses on investment decisions, dividend decisions, financing and WCM decisions. The process of balancing firm working capital and dividend payments often determines how successful a business will be and this is dependent on how efficient a firm is in managing its disposable resources and its prudence in handling operational activities. Because of the drawbacks associate with an over or under investment in working capital, a number of research investigations have been made to find an optimal WCM policy. Such a level will permit companies to lower operational costs while benefitting from operational efficiencies. Because of this, WCM can be both a catalyst or limitation to dividend payout thereby adopting it as a study variable will be useful in determining optimal financial practices for managing liquidity. The objective of this research study was assessing how WCM impacts dividend payout of NSE listed manufacturing firms. The population for the research was all the 9 NSE listed manufacturing firms. Predictor variable in this research was WCM operationalized as current assets to current liabilities. Control variables were profitability given by return on equity, debt financing as given by total debt to total assets and firm size given by natural log of total assets on an annual basis. Dividend payout was the dependent variable given by ratio of dividend per share to earnings per share. Secondary data was collected over five years (January 2015 - December 2019) annually. Descriptive cross-sectional design was used for the research to assess the relation between the study variables. Analysis was made using SPSS version 24. Findings produced an R-square value of 0.214, meaning that 21.4 percent variations in dividend payout in firms in the manufacturing industry were the result of the four independent variables while 78.6 percent changes in dividend payout of NSE listed manufacturing firms was the result of other factors which are not highlighted. This research showed independent variables had a moderate association with firm's values ($R=0.462$). ANOVA findings reveal the F statistic was substantial at 5% with $p<0.05$. This implies that the overall regression was appropriate to explain the influence of the independent variables on dividend payout. Findings also showed that debt financing has a substantial negative influence on dividend payout and firm size has a substantial positive impact on dividend payout of the NSE listed firms. WCM and profitability produced statistically insignificant influence for this study. The recommendation is that NSE listed manufacturing firms should focus on having a tradeoff between the tax shield benefits of debt financing and the risks of bankruptcy while at the same time enhancing firm size as these two have a significant influence on their dividend payout.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

It is no doubt that the culture of firms distributing dividends is not new since it dates back to ancient times approximately four centuries ago (Baskin, 1988). Dividend has been a contagious subject under investigation (Pandey, 2004). Many scholars of finance and economics have in the past fifty years geared all their efforts towards finding out the determinants that influence how dividend payout is determined. 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 Returns on Assets (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.

This study's theoretical foundation was built on liquidity preference, the agency and the bird in hand theories. The Keynesian liquidity preference theory by Keynes (1936) was the basis of WCM. In the theory, it is argued that holding all variables constant, investors have preference over liquid investments compared to illiquid investments. The assumption surrounding the agency is that there exists asymmetries in information between principals and agents which explains the association amongst working capital and dividend payout. In minimizing costs related to agency, Jensen and Meckling (1976) suggests the existence of an optimal level in which costs of agency are minimized. Bird in hand theory posits a connection amongst a company's value and dividend policy. This theory mainly asserts that equity holders are risk-averse and

prefer to receive current dividends. Gordon (1963) contends that the investors prefer dividends compared to expected capital gains because of their uncertainty.

Some listed manufacturing and allied companies such as Mumias Sugar have not been paying dividends while still others such as Eveready East Africa has been reducing the dividend payout ratio which have been attributed to lack of liquidity. 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 manufacturing 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 (CMA, 2018). There is therefore need to investigate whether working capital management influences dividend payout among manufacturing firms listed at the NSE.

1.1.1 Working Capital Management

Mathuva (2010) defined this as the management of funds associated with daily operations whose end goal is to trade off firm liquidity and profitability. In this regard Baños-Caballero et al (2012) stated that the efficient management of working capital involves setting up an optimal level of WC, financing this level and finally controlling it. Abuzayed (2012) stated that WCM is the procedure that involves balancing and managing issues arising from the maintenance of optimal levels of: current liabilities, assets, inventories and their interactions. He also stated that the failure of a firm to maintain optimal WC levels may result in bankruptcy or insolvency. Adding to the above assumptions, , Smith (2014) stated that WCM involves the managing of funds associated with daily operations with the intent of trading off risk and profits associated with current liabilities and assets.

The process of finding a balance between liquidity and firm profitability determines if a business will be successful or if it will result in failure. This is dependent on the management of resources and the firm's efficiency in managing operations (Mathuva, 2010). Because of this, many institutions have allocated time and resources to find sub-optimal levels of operation whereby there is no massive amounts of cash that are invested in fixed assets and investments quality is not affected. For organizations to sustain investment returns, there should WC levels. Over investing in working capital would tie up more funds resulting from high DSO and therefore force firms to fund their operations using externally borrowed funds while under investing in working capital will result in no growth and low ROI (Kieschnick et al., 2016). Because of the drawbacks associated with Over/Under investing in WC, a number of research investigations have been conducted to find an optimal WCM policy. An optimal policy will enable firms to lower costs while simultaneously benefitting from large operational efficiencies. From the above discussion, WCM is both a catalyst and a limitation to EM and adopting it in this study will be useful in finding optimal financing policy decisions and practices of managing liquidity (Beneish, 2017) .

Working capital can be split into a gross component and a net component. The gross component refers to the sum value of current assets held. The net component is the surplus of current assets over liabilities (Alver, 2012). The components of WC are receivables, payables and inventory which are different in terms of composition and which is dependent on the industry in which the firm is operating. Several studies have been conducted on working capital with different scholars using different measurements. Some utilize the cash conversion cycle to measure WCM (Mathuva, 2010; Shin & Soenen, 2018, Kieschnick et al., 2016 and Baños-Caballero et al., 2012), others utilize the Net trade cycles and weighted average cash conversion cycle

(Prasad et al., 2019) while others utilize Net working capital and cash flow from operations (Ashhari, 2012).

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.

Ross, Westerfield and Jaffe (2002) contends that dividend decisions are crucial because they define amounts to be paid as dividends to shareholders and the one to be held by the company as retained earning so as to finance investment. They signal vital information to shareholders pertaining the performance of a company. Foong, Zakaria and Tan (2007) opines that the future dividend and firm earning are determined by investment of the firm and impact the firm's cost of capital. In an organization, dividend policy is the most important area of finance for the point of view of all stakeholders including government, customers, employees and regulatory agencies. It can be perceived as a policy based on other financial policies that functions as a pivot (Sujata, 2009).

Finance manager uses the dividend policy as the guide on the amount to be paid to shareholders as dividend and the amount to keep as retained earnings. The major types of dividend payout policies include; constant payout ratio which means a fixed proportion of the net earning is paid every year, constant dividend per share or dividend rate is a policy where firms announce dividend as a percentage of paid-up capital per share, constant dividend per share plus extra dividend policy which is applicable to firms with varying earnings that pay extra dividend in periods of prosperity. The final policy is the residual dividend policy payout; this policy is where firms pay out dividend of amount that is left after all investments are made, if there is not profit that remain after doing investment then no dividend is paid in that period (Pandey, 2010).

1.1.3 Working Capital and Dividend Policy

Modigliani and Miller (1961) being one of the key contributors of theories surrounding the dividend phenomena formulated the dividend irrelevancy theory which argued that in perfect markets characterized by free information flow among market participants, no transaction costs and taxation, dividend pay-out has no meaning since it adds no value to the firm. Additionally, the theory states that the issuance of dividends by a company lowers the value of the company by an amount equal to the funds issued can be restored through the issuance of an equal amount of shares, therefore it concludes by stating that power over dividends lies in the shareholders hands who may decide whether to buy or sell their shares (Brigham & Houston, 2011).

Clientele theory as developed by Jensen and Meckling (1976) assumes that different investors are attracted to different company policies and when the policies change

they adjust their shareholdings accordingly. Preferences of investors differ and agency is duty bound to try and accommodate both their needs in order to avoid withdrawal of shareholders whose interests are neglected. In specific the aged rely on dividend as a source of income for livelihood hence a prudent manager need to analyze type of shareholders the company constitutes and make a moderate conclusion on how dividend should be paid (Shefrin & Thaler, 1988).

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 Manufacturing Firms Listed at the Nairobi Securities Exchange

The NSE which was formed 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. 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. There are currently 9 manufacturing and allied companies listed at the NSE (NSE, 2019).

In order for firms to be listed at the NSE it is required that a firm should adopt a stable dividend policy and total indebtedness not to be above 400% of the net worth of the firms implying a gearing ratio of 4:1 amongst other requirements (NSE manual, 2013). Gazettement of Legal Notice No. 60 (2002) reinforced the listing requirement at the NSE that states that those firm wanting to be listed ought to have a definite future dividend policy. In Kenya most of the quoted companies pay dividend semi-annually. No legal requirements recommend firms to employ a particular divided payment schedule. Nevertheless, dividend distribution is monitored through some legal restrictions for example dividend should only be paid out of capital only if the firm is undergoing liquidation.

Financial signaling theory supposes that the dividend might be used to communicate information, which opposed to profits themselves, influences the price of shares. Dividend payment conveys the strength and health of the company in economic terms. It therefore causes the demand of the firm to raise share, leading to increase in stock prices. When a business alters its dividend payout ratio, investors frequently assume that it is responding to expected company profitability, which could last long. Payment ration increases, signal shareholders of an increase in firm expected earnings (Musiega et al., 2013).

1.2 Research Problem

The process of finding a balance between liquidity and firm profitability determines if a business will be successful or if it will result in failure. This is dependent on the management of resources and the firm's efficiency in managing operations (Mathuva,

2010). Because of this, many institutions have allocated time and resources to find sub-optimal levels of operation whereby there is no massive amounts of cash that are invested in fixed assets and investments quality is not affected. For organizations to sustain investment returns, there should WC levels. Over investing in working capital would tie up more funds resulting from high DSO and therefore force firms to fund their operations using externally borrowed funds while under investing in working capital will result in no growth and low ROI (Kieschnick et al., 2016). Because of the drawbacks associated with Over/Under investing in WC, a number of research investigations have been conducted to find an optimal WCM policy. An optimal policy will enable firms to lower costs while simultaneously benefitting from large operational efficiencies. From the above discussion, WCM is both a catalyst and a limitation to EM and adopting it in this study will be useful in finding optimal financing policy decisions and practices of managing liquidity (Beneish, 2017) .

Dividend payout among listed manufacturing firms at the NSE has fluctuated over the years. In the year 2018, only East African Breweries Limited was able to pay a special dividend above normal dividends. Loss-making Eveready East Africa was the only company that declared plans to share their squeezed fortunes with shareholders (NSE report, 2019). 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 manufacturing 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. The current intends to establish if working capital has an influence on the level of dividend payout among manufacturing firms.

Most of the wide literature review have examined the dividend policy determinants and have considered several factors like liquidity, growth, profitability, leverage, firm size, corporate tax, ownership structure and market concentration with only few studies investigating the effect of working capital management on dividend payout policy of firms. The findings of these few studies have also been inconsistent. 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. 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.

Although there are several studies conducted locally in this area, there exist conceptual, contextual and methodological gaps. Conceptually, most of the studies have operationalized WCM differently (Bushuru et al., 2015; Olang and Okeng, 2017) and therefore the findings are based on the proxies used. Further, the focus of many studies is on the influence of other variables on firm dividend payout and not necessarily WCM (Ativo, 2013; Kivale, 2013; Mudeizi, 2017). Contextually, the studies have not focused on manufacturing firms listed at the NSE. These research gaps are the motivation for answering the research question: What is the relationship between working capital management and dividend payout of NSE listed manufacturing firms?

1.3 Research Objective

The intent was to assess the relation between working capital management and dividend payout of manufacturing firms with a listing at the NSE.

1.4 Value of the Study

The 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.

The study is beneficial to the manufacturing 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.

To the government and policy formulators, it will be beneficial in aiding the formulation of policies and procedures that would steer manufacturing 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 liquidity preference theory, agency theory and the bird in hand theory.

2.2.1 Keynesian Liquidity Preference Theory

The above theory was initiated by Keynes (1936) which was the standard theory for the formulation of WCM. According to this theory, it is argued that with all factors constant, investors have preference in liquid as opposed compared to illiquid investments and therefore seek to make a surplus from investments with an extended maturity period. Liquidity is therefore the decision to hold cash. An organization may need to hold cash for a variety of reasons at a specific time (Bitrus, 2011). From this theory, organizations hold cash to meet transactional, speculative, precautionary, and for compensation purpose. Transactional motive refers to the firm's desire to hold cash to meet current business transactions. They require such funds to pay for current requirements that include transportation, raw materials, wages and others. Precautionary cash holding purpose involves holding cash to meet unforeseen emergencies. Many firms set aside finances meant to be utilized in difficult times or to benefit from unanticipated activities. The speculative motive refers to the ability to

maintain liquid assets to profit from future interest and bond price adjustments (Pandey, 1997).

The above theory has faced a lot of criticism for arguing that a firm benefits from interest if it forgoes liquidity. This implies that interest is higher during high liquidity preference and is lower during low liquidity preference. In times of depression, individuals exhibit high liquidity preference despite the interest being low. In inflationary periods, individuals exhibit low liquidity preference but interests associated are very high. Such facts contradict the Keynes's theory. This is because the level of income was not considered by Keynes. The modern determinate theory explains this concept exhaustively (Gill et al., 2010). Additionally, Keynes made the assumption that there is a choice between liquid cash and illiquid bonds. The theory is hence an all or nothing theory. In the real world, there exists several kinds of assets which vary in terms of degrees of liquidity (Stewart, 2011).

The relevance of this theory in the current study is that the importance of liquidity in financing daily firm activities cannot be assumed. Listed firm manager are required to maintain adequate working capital levels which will aid in the achievement of firm objectives which is primarily shareholder wealth maximization. In spite of this, the theory does not explain how WCM influences dividend payout but it can be assumed that with the achievement of the target working capital management, firms will be encouraged to issue dividends. An excess liquidity on the other hand results in loss of investments hence firms should make sure they lower the total liquidity and illiquidity cost. The objective of WCM therefore remains as the enhancement of liquidity and the values of the firm (Pandey, 1997).

2.2.2 Agency Theory

This was initiated by Jensen and Meckling (1976). From the definition, agency is the binding agreement between an agent and a principal in which the agent is contractually obliged to conduct affairs on the principal's behalf. The contract is then subject to the current market complexities which offers an incentive to minimize problems associated with the agency contract. Time and again, the principal normally delegates decision-making authority to the agent expecting he or she will act in good faith. The theory further explains that the arising conflicts between principals and agents may be the result of divergent risk preferences, moral hazards, asymmetry of information and the distinction between ownership and control. The theory is useful to explain how WCM and dividend payout relate by stating that managers engage in the manipulation of WC and reported profitability by making investments in short term profitable projects which aids them in the achievement of set targets. On the contrary, investors have preference over long-term investments which promise a high and sustainable ROI often relying on published financials to value their investments.

Earlier scholars who heavily used this theory in explaining WCM are in support of the assumptions held which state that both principals and agents are driven by their personal interest. They have highlighted the ability of the theory to explain and manage the occasional conflicting operational and financial needs occurring between managers and shareholders (Mathuva, 2014). It is argued that to enable maximization of shareholder wealth it is necessary to invest in portfolios generating a positive NPV. Asher et al (2005) raises a criticism on this assumption by arguing that it is excessively optimistic to rely on firms for the identification of all aspects related to agency problem which maximize the NPV and that this theory places too much focus on the agents and neglects the institution. Rowe (1982) additionally places criticisms

on the theory on a number of levels; it does not give sufficient reasons as to why the agent is the reason for his own actions and cannot confirm how these events influence the free will of the agent. In spite of the identified criticism, the theory has been recognized in the field of finance as a standard theory and is essential in explaining how WCM and dividend payout relate.

The assumption of the theory of the existence of information asymmetries between principals and agents is a key factor in explaining the relation between WCM and dividend payout. For minimization of agency costs, Jensen and Meckling (1976) states that there should be an established optimal level which minimizes costs related to agency, and encourages wealth optimization and by extension establish an optimal level of WCM that increases the dividend payments. The assumption of the theory is that the higher the targeted level of WCM, the more the costs of agency and hence the increase in dividend payout.

2.2.3 The Bird in Hand Theory

The theory explaining the significance of dividends to the value of the firm was developed by Gordon (1963) and Lintner (1962). Expected growth rate, future dividend and current share price are the factors that determine the cost of equity according to Gordon's model. Therefore, dividend yield and growth results to return for equity holders. It implies that dividend yield is more relevant than cost in measuring return on equity. Gordon's model purports that the factors determining the value of the firm are expected growth, cost of equity, current share price and expected dividends.

As indicated by Gordon's model, expected dividend growth rate and dividend yield and determine the ROE although dividend yield is more important than expected

growth rate of dividends. There is no certainty about growth hence estimation of capital gains is not accurate and stock market value could be diminished resulting to insolvency. Future Market value of companies that do not pay dividends are uncertain as investors are not guaranteed of realizing expected capital gains. This is derivative of the assumption that firm has no access to external financing and thus all funding will be from retained earnings hence constant cost of capital and returns. (Lintner, 1956).

Bird in hand theory assumes a company's value correlates to its dividend policy. The theory supposes that equity holders are risk averse and prefer dividends in the short run. Gordon (1963) model asserts that investors prefer dividends to anticipated capital gains which are uncertain. The theory supposes that payment of current dividends weighs down uncertainty therefore increasing share value when investors prefer the present earnings than future gains. Guaranteed current dividend payout is preferred by investors than forecasted higher future dividends and or capital gains in spite of them being higher. Hence relevance of dividend policy.

Bird in hand theory is relevant because it outlines returns on investment and how the investors perceive dividends. It clearly indicates that investors have a high likelihood of investing in stocks that pay dividends on current basis instead of investing in stocks that are retaining earnings in order to pay dividends later. Thus firms too factor in individual investor preferences to be able to come up with an optimal decision concerning implementation of dividends payout policy.

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, debt financing, profitability, growth prospects, 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 Debt Financing

A rising study number have revealed that level of financial leverage has a negative effect on the dividend policy (Faccio et al., 2001; Gugler and Yurtoglu, 2003; Al Malkawi, 2005). Their studies concluded that greatly levered firms decide upholding their cash flow internal to accomplish responsibilities, rather than allotting cash accessible to shareholders and safeguard their creditors.

Nevertheless, Mollah et al., (2001) observed a market evolving and revealed a positive association amongst debt burden level and financial leverage that rise the cost of transactions. Therefore, firms with high leveraging ratios are associated of having transaction costs that are high, and are in a position that is weak to manage higher dividends pay in avoiding the external financing cost. To evaluate the debt level in which it can have impact on dividend payouts, this research used the financial leverage ratio, or ratio of liabilities (total short and long term) to total shareholders' equity. Al Kuwari (2009) also established an inverse association that is significantly between the two. The used proxy is Debt to Equity ratio for financial leverage.

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 future earnings.

Gitman and Pruitt (1991) 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 firm size is 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 locally and globally in support of the association between working capital management and dividend payout, with varied 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.

Ahmed (2015) endeavored to examine how dividend policy was impacted by profitability and liquidity in the context of UAE banking sector and investigated the difference between conventional banks and Islamic banks. The study period spanned through 2005 to 2012 and study population was 18 national banks from which data was collected and afterward analyzed using regression and correlation analysis. The study measured dividend payout ratio with regard to profitability and liquidity ratios. From the findings it was revealed that a positive and significant association of dividend payout ratio and liquidity existed whereas and negative and insignificant association with profitability existed. More so it was shown that there was significant difference of variables in Islamic banks though not significant with period.

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 profitability 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 OLS regression was used. WCM was measured using cash conversion cycle, inventory holding days and number of days' account receivable are outstanding. Profitability was measure using ROA. The findings revealed the WCM as measure by cash conversion cycle, inventory holding days and number of days' account receivable are outstanding had a substantial positive impact on profitability 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

Musiega, Alala, Musiega, Maokomba and Egessa (2013) did a research to investigate the dividend payout policy determinants among non-financial organizations at the NSE from 2007-2011. 30 non-financial firms were selected using purposive sampling. The dependent variable was the dividend payout ratio, while profitability, current earnings, liquidity and growth were the independent variables. Data analysis was performed through use of multiple regression and descriptive statistics. Return on equity, firm's growth and present earnings were established to have a positive link with dividend payout.

Arumba (2014) studied on what determine the payment of dividend for companies quoted at the NSE. The study sought to demonstrate the extent to which the firm's earnings, profitability, liquidity and company size demonstrate dividend payout. The study found a consistent relationship amongst dividend payout and all the four variables. Earnings and profitability had a substantial positive correlation with dividend payout. However, firm size was noted to have a positive association which was fringe. Liquidity had a negative though significant association with dividend payout; this is in contravention of Kibet (2010) findings on this relationship.

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 ratio

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.

2.5 Summary of the Literature Review

By the fact that dividend pay-out remains unresolved Black (1976) it is no doubt that emerging scholars while continue to research on this thorny issue that elicits not only the concern to academic fraternity, but also entire business community that stand to benefit by applying the along waited remedy on how to disperse dividend

phenomenon professionally. The available literature richly acknowledges immense contributions done by researchers on this subject, but this study has narrowed its investigations specifically on dividend pay-out determinants on manufacturing firms listed at the NSE.

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 done working capital management and dividend policy. The few studies available on the two study variables have been inconsistent. Although there are few studies that hypothesize the relationship between WCM and dividend payout, the findings have been inconsistent.

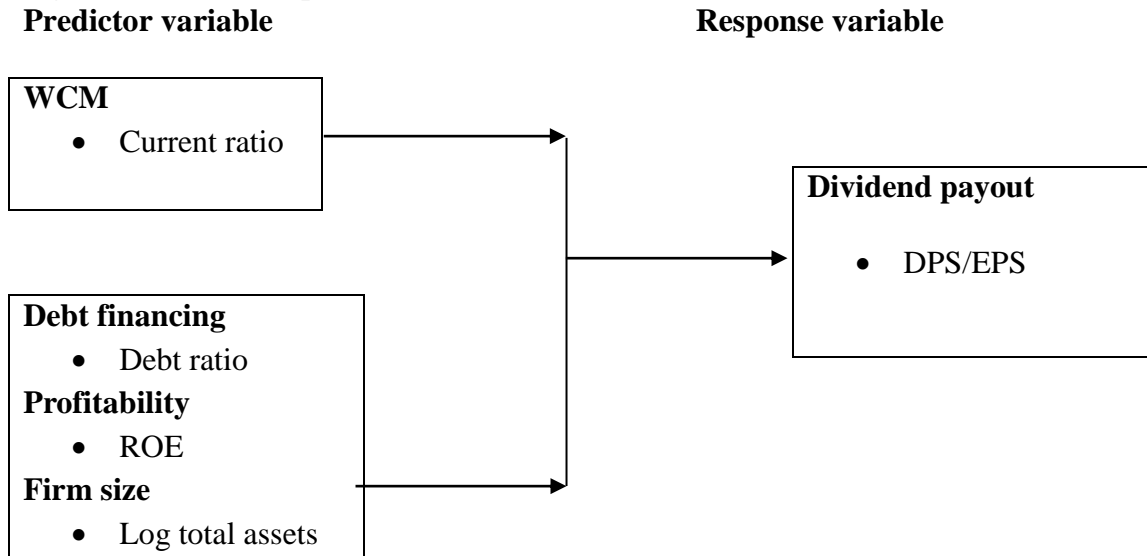
Oladipupo and Ibadin (2013) in examining the association between WCM practice and dividend payout ratio of manufacturing firms listed in Nigeria Stock Exchange established that WCM is not significant in making dividend policy decision. Bushuru et al. (2015) undertook a study on to establish how dividend payout ratio is impacted by WCM in firms listed at NSE in Kenya and revealed that WCM with respect to APP and CCC positively and significantly relates with dividend payout ratio. On the contrast WCM with respect to ICP and ACP had a negative and significant relationship with dividend payout ratio. This study identify a knowledge gap which this study aims of filling. This study therefore seeks to find out the effect of WCM on dividend payout ratio by manufacturing firms listed at the NSE.

2.6 Conceptual Framework

The model below exhibits the predicted association between variables. The independent variable for the study was WCM measured as current assets divided by

current liabilities. The control variables were debt financing, profitability and firm size. The dependent variable was dividend payout given by DPS divided by EPS.

Figure 2.1: The Conceptual Model



Control Variables

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 utilized a descriptive cross-sectional 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 was also appropriate because the nature of the phenomenon being studied and how they relate was of major interest to the researcher. Additionally, a descriptive research will validly and accurately represent the variables which aid in providing a response to the research query (Cooper & Schindler, 2008).

3.3 Population

Burns and Burns (2008), define this as the number of all of the observations of interest within a particular collection such as people or events as described by an investigator. It consisted of the entire 9 manufacturing firms with a listing at the NSE as at 31st December 2019 (see Appendix I). Because the population was small, no sampling was done.

3.4 Data Collection

Published annual reports of the firms being studied were 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 its lagged value in a time series in between successive intervals of time. This was

measured by the Durbin-Watson statistic and in case 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. Any multicollinear variable should be dropped from the study and a new measure selected and substituted with the variable which exhibits co-linearity.

3.5.2 Analytical Model

The 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 DPS divided by EPS.

α = 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 = Debt financing 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

ε = 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 was used in the determination of the significance of the model using ANOVA model and a t-test determined how significant the individual variables were.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND FINDINGS

4.1 Introduction

The chapter presents analysis of data from CMA to establish how working capital management influences manufacturing firms' dividend payout. Using descriptive statistics, correlation and regression, results were tabulated as shown in sections below.

4.2 Descriptive Analysis

This analysis presents the maximum, average and minimum values of the variable values such as standard deviation for the study. Table 4.1 illustrates statistics on the variables. SPSS analyzed the variables for five years (2015 to 2019) for the manufacturing firms' data. The values are shown below.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DPR	44	.0000	2.5743	.456689	.5549671
WCM	44	.0290	9.4280	2.067289	1.9026406
Debt financing	44	.0970	1.9142	.566611	.3301678
Profitability	44	-1.2214	.3673	.026368	.2812690
Firm Size	44	4.8961	7.9398	6.580255	.8324096
Valid N (listwise)	44				

Source: Research Findings (2020)

4.3 Diagnostic Tests

Diagnostic tests were performed on the data. Multicollinearity test was also done. The VIF and Tolerance values in which values more than 0.2 for Tolerance, and those less than 10 for VIF indicate the absence of multicollinearity. For the multiple regressions to be applicable, a significant relationship should not be established among the independent variables. The tolerance values found were >0.2 and VIF

values <10 for the tabulated results in 4.2 indicating the lack of Multicollinearity among the predictor variables.

Table 4.2: Multicollinearity Test for Tolerance and VIF

Variable	Collinearity Statistics	
	Tolerance	VIF
WCM	0.398	2.513
Profitability	0.388	2.577
Debt financing	0.376	2.659
Firm size	0.386	2.591

Source: Research Findings (2020)

Shapiro-wilk was used to ascertain normality. Null hypothesis tested assumptions that data was not normally distributed. A p-value of greater than 0.05, would lead to rejection of the null hypothesis by the researcher. Findings are tabulated in 4.3 below.

Table 4.3: Normality Test

DPR	Statistic	Shapiro-Wilk	
		Df	Sig.
WCM	.881	44	.723
Profitability	.892	44	.784
Debt financing	.918	44	.822
Firm size	.874	44	.812

Source: Research Findings (2020)

The Shapiro-Wilk tests gave p-values higher than 0.05 which confirmed that data had a normal distribution thereby the null hypothesis was rejected. It hence confirmed that the data was suitable to be used for parametric tests such as Pearson's correlation, regression analysis and ANOVA.

Tests for autocorrelation were run to determine if there was a correlation of error terms over time using the Durbin Watson test. Statistic of 1.979 showed there was no serial autocorrelation since the value lied within 1.5 and 2.5 that was accepted.

Table 4.4: Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.462 ^a	.214	.133	.5167191	1.979

a. Predictors: (Constant), Firm Size, Profitability, WCM, Debt financing
b. Dependent Variable: DPR

Source: Research Findings (2020)

Normally, most variables exhibit non-stationarity prior to a regression analysis. The researcher hence performed unit root tests using the Augmented Dickey-Fuller (ADF) test for this property. This ensured that false regression findings were minimized by using non-stationary series.

Table 4.5: Stationary Test

Variable name	ADF test	5% Level	Prob
DPR	-3.753547	-3.540328	0.0312
WCM	-4.262276	-3.540328	0.0093
Profitability	-4.522157	-3.540328	0.0420
Firm size	-3.98997	-2.91452	0.0043
Debt financing	-2.78574	-1.53674	0.0381

Source: Research Findings (2020)

Table 4.5 shows variables as stationary (i.e. absence/presence of unit roots) at 5% significance level. Therefore, eliminating the need for differencing the variables.

4.4 Correlation Analysis

Assessment of the relation between variables is done using correlation analysis. The relationship being investigated may be between a (-) strong negative correlation and (+) strong positive correlation. This was done using the Pearson correlation to

establish how manufacturing firms' WCM and the variables (WCM, profitability, leverage and firm size) are related.

It was found that WCM, profitability and firm size were positively but weakly correlated with the manufacturing firms' dividend payout given by ($r = .117, p = .149$; $r = .241, p = .115$; $r = .271, p = .075$) in that order. Debt financing exhibited a negative substantial correlation with dividend payout shown by ($r = -.308, p = .042$). Although being related, the independent variables' relation was insignificant therefore multicollinearity could not be established because the r values were lower than 0.70. This provided proof that Multicollinearity was inexistent between the predictor variables thereby confirming their suitability to determine dividend payout in the regression model.

Table 4.6: Correlation Analysis

		DPR	WCM	Debt financing	Profitability	Firm Size
DPR	Pearson Correlation	1				
	Sig. (2-tailed)					
WCM	Pearson Correlation	.117	1			
	Sig. (2-tailed)	.449				
Debt financing	Pearson Correlation	-.308*	-.219	1		
	Sig. (2-tailed)	.042	.000			
Profitability	Pearson Correlation	.241	.187	-.335*	1	
	Sig. (2-tailed)	.115	.224	.026		
Firm Size	Pearson Correlation	.271	-.206	.165	.090	1
	Sig. (2-tailed)	.075	.179	.284	.561	

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).
 c. Listwise N=44

Source: Research Findings (2020)

4.5 Regression Analysis

The variables against which dividend payout was regressed were; WCM, profitability, leverage and firm size. This analysis was completed at 5% significance level. Critical value given by F – table was compared with the figure from the regression model. The summary of the statistics are below in table 4.7.

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.462 ^a	.214	.133	.5167191	1.979

a. Predictors: (Constant), Firm Size, Profitability, WCM, Debt financing
b. Dependent Variable: DPR

Source: Research Findings (2020)

R square known as coefficient of determination shows variations in response variable resulting from variations in predictor variables. From findings in table 4.7 above, it was found to be 0.214, meaning that 21.4% variations in dividend payout of manufacturing firms stems from variations in WCM, profitability, debt financing and firm size. Alternate variables not considered in the model considered account for 78.6% variations in WCM. Additionally, findings revealed that independent variables showed a moderate relation with WCM showed by a 0.462 correlation coefficient (R). A durbin-watson statistic of 1.979 provided evidence showing that residuals of the variable exhibited no serial correlation because it was greater than 1.5.

Table 4.8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.831	4	.708	2.650	.048
	Residual	10.413	39	.267		
	Total	13.244	43			

a. Dependent Variable: DPR
b. Predictors: (Constant), Firm Size, Profitability, WCM, Debt financing

Source: Research Findings (2020)

The significant figure is 0.048 which is less than $p=0.05$. This indicates the efficiency model in estimating how WCM, profitability, debt financing and firm size influence dividend payout of NSE listed manufacturing firms.

Coefficients of determination indicated the relationship direction between the predictor variables and the manufacturing firms' WCM. The p-value under sig. column was employed to indicate how significant the relation between the response and the predictor variables are. The 95% confidence, implies a p-value lower than 0.05. Consequently, a p-value lower than 0.05 shows an insignificant relationship between the predictor and response variable. Results are in table 4.9

Table 4.9: Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	(Constant)	-.519	.698		-.743	.462
1	WCM	-.019	.053	-.064	-.352	.727
	Debt financing	-1.099	.345	-.250	-3.184	.003
	Profitability	.203	.301	.103	.675	.504
	Firm Size	.206	.098	.309	2.102	.042

a. Dependent Variable: DPR

Source: Research Findings (2020)

From the findings, WCM has a negative effect on dividend payout but the effect is weak. Profitability exhibited a substantial positive influence on dividend payout while firm size exhibited a substantial positive influence on dividend payout as shown by a high t value and a p value less than 0.05. Debt financing had a negative and statistically substantial impact on dividend payout as shown by a p value lower than 0.05.

The equation below was determined:

$$Y = -0.519 - 1.099X_1 + 0.206X_2$$

Where,

Y = Dividend Payout

X₁ = WCM

X₁ = Profitability

X₁ = Firm size

From the model above, the constant = -0.519 indicates that if the chosen independent variables (WCM, profitability, leverage and firm size) were held constant or rated zero, dividend payout would be -0.519. Raising debt financing by a unit would lower dividend payout by 1.099 while increasing firm size by a unit would increase dividend payout by 0.206 while WCM and profitability were statistically insignificant

4.7 Interpretation and Discussion of Research Findings

The study's intent was assessing how WCM influence dividend payout of NSE listed manufacturing firms. WCM was the independent variable given by current assets to current liabilities. The control variables were profitability given by ROA, firm size given by natural log of total assets and debt financing given by debt to assets ratio. Dividend payout was response variable given by dividend per share to earnings per share.

The Pearson correlation coefficients indicated that debt financing has a negative substantial correlation with dividend payout of manufacturing firms. Findings also showed a positive but weak correlation between profitability and firm size with dividend payout of NSE listed manufacturing firms. WCM exhibited a positive but statistically weak association with dividend payout of NSE listed manufacturing firms.

The model summary showed that: WCM, profitability, debt financing and firm size explains 21.4% variations in the dependent variable given by R^2 which implies that additional factors not accounted for in the model explain the 78.6% changes in dividend payout. The model was sufficient at 95% confidence since the p-value is <0.05 . This indicated the efficiency of the model in elaborating how the variables relate.

Findings agree 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 was 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 found that profitability has a positive impact 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.

The findings are also in line 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.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes findings from the previous chapter, conclusion, and limitations faced in the study. It also gives a recommendation of policies which policy formulators may utilize in improving the expectations of listed manufacturing firms regarding the attainment of superior dividend payout. Additionally, it lays out suggestions for future researchers.

5.2 Summary of Findings

The objective of this research was to assess how WCM influence dividend payout of NSE listed manufacturing firms. The selected variables for investigation included WCM, profitability, debt financing and firm size. A descriptive cross-sectional design was chosen in accomplishing this purpose. Secondary data was gathered from CMA and analyzed by SPSS. Yearly data for 9 manufacturing firms from 2015 to 2019 was gathered from the manufacturing firms' reports.

From correlation analysis, debt financing had a negative and statistically substantial correlation with dividend payout of manufacturing firms. A positive but weak correlation between profitability and firm size with dividend payout of NSE listed manufacturing firms was also found. WCM exhibited a positive but weak association with dividend payout of NSE listed manufacturing firms.

From the results of regression analysis, R square was 0.214, revealing that 21.4% variations in dividend payout of NSE listed manufacturing firms stems from variations in WCM, profitability, debt financing and firm size. Outside factors justify

for 78.6% of the changes in dividend payout. A strong correlation existed between the selected predictor variables and manufacturing firms' value ($R=0.462$). ANOVA findings showed that the F computed at 5% significance level was higher than the critical value while the p value was below 0.05 implying that the model efficient in predicting how the four selected independent variables impact dividend payout of NSE listed manufacturing firms.

Regression results indicate that by holding the independent variables (WCM, profitability, debt financing and firm size) constant or rated zero, dividend payout would be -0.519. Raising debt financing by a unit would lower dividend payout by 1.099 while increasing firm size by a unit would increase dividend payout by 0.206 while WCM and profitability were not statistically significant.

5.3 Conclusion

Findings show that the NSE listed manufacturing firms' dividend payout is significantly influenced by debt financing. A unit increase in this variable significantly decreases the dividend payout of manufacturing firms. Firm size had a substantial positive relation to dividend payout hence the study shows that increasing firm size increases dividend payout to a significant extent. The study also showed that WCM was not statistically significant in determining dividend payout and hence the conclusion was that WCM has no profound effect on dividend payout of listed manufacturing firms. Further, the study found that profitability has a positive but not statistically significant impact on dividend payout and therefore concludes that debt financing is not a significant determiner of dividend payout.

The conclusion is that the independent variables selected for this study WCM, profitability, debt financing and firm size to a larger extent has a notable influence on

the dividend payout of NSE listed manufacturing firms. These variables have a notable impact on the dividend payout of manufacturing firms given that the p value in ANOVA is less than 0.05. The fact that that selected independent variables explain 21.6% of changes in dividend payout implies that 78.6% of variations in dividend payout of manufacturing firms are as a result of other factors not considered in the model.

This study agrees with the findings of Yakubu (2019) who 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.

This study disagrees with Khan and Ahmad (2017) who 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.

5.4 Recommendations for Policy and Practice

The existence of a negative and statistically significant influence of debt financing on dividend payout was found. Implication that firms with more debt in their capital structure will on average pay less dividends than firms with less debt. This study recommends that firms should create a balance between the tax shield benefit of debt and the bankruptcy costs associated with too much debt by coming with optimal capital structures that will not negatively influence the dividend payout.

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.

The study showed the influence of WCM on dividend payout as negative. A number of the recommendations that will influence policy change are: 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 focus was on some factors that are hypothesized to influence dividend payout of NSE listed manufacturing firms. Specifically, the study focused on four explanatory variables. In reality however, there are other variables that are likely to influence dividend payout of firms some which are internal such as management efficiency and

age of the firm while others are not under the control of management such as economic growth exchange rates, balance of trade, and unemployment rate among others.

The study adopted the analytical approach which is highly scientific. The research also disregarded qualitative information which could explain other factors that influence the association between WCM and dividend pay-out of manufacturing firms. Qualitative methods such as focus group discussions, open ended questionnaires or interviews can help develop more concrete results.

The research concentrated on 5 years (2015 to 2019). It is not certain whether the findings would hold for a longer time frame. It is also unclear as to whether similar outcomes would be obtained beyond 2019. The study should have been executed over a longer time frame in order to incorporate major forces such as booms and recession.

In completing the analysis, multiple linear regression model was used. Because of the drawbacks involved when using the model like erroneous and misleading results arising from a change in variable dividend payout, the researcher cannot generalize findings accurately. If data is added to the regression model, it may fail to perform as expected.

5.6 Suggestions for Further Research

The study focus was how WCM influence dividend payout of NSE listed manufacturing firms and relied on secondary data. Similar studies using primary data obtained using in depth questionnaires and interviews on all the 9 NSE listed manufacturing firms would complement this investigation.

All the factors influencing dividend payout of NSE listed manufacturing firms were not exhausted and therefore future studies should be based on other variables like growth possibilities, industry practices, firm age, political stability and others. By establishing how every variable affects dividend payout the policy formulators will implement an efficient to control dividend payout.

The research only focused on the NSE listed manufacturing firms. The study's recommendations are that additional studies be carried out on other firms that operate in Kenya. Future studies can also focus on how WCM influence other aspects other than dividend payout such as firm value, profitability, growth among others.

The attention of this study was drawn to the latest five years because it was the readily available information. Subsequent studies may cover big time frame like ten or twenty years which can be very impactful on this study by either complementing or disregarding the findings of this study. The advantage of a longer study is that it will enable the researcher to capture effects of business cycles such as booms and recessions.

Finally, this study was based on a multiple linear regression model, which has its own limitations like errors and misleading results resulting from a change in variable dividend payout. Future researchers should focus on models like the Vector Error Correction Model (VECM) in exploring the various relations between WCM and dividend payout.

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APPENDICES

Appendix I: Manufacturing and Allied Firms Listed at the NSE

1. B.O.C Kenya Ltd
2. British American Tobacco Kenya Ltd
3. Carbacid Investments Ltd
4. East African Breweries Ltd
5. Eveready East Africa Ltd
6. Flame Tree Group Holdings Ltd
7. Kenya Orchards Ltd
8. Mumias Sugar Co. Ltd
9. Unga Group Ltd

Appendix II: Research Data

Firm	Year	DPR	WCM	Debt financing	Profitability	Firm Size
BAT	2019	0.9846	1.0870	0.5571	0.1781	7.3412
	2018	0.8568	1.5911	0.4924	0.2227	7.2634
	2017	0.7794	1.3180	0.8749	0.1878	7.2506
	2016	1.1691	1.4132	0.8488	0.2622	7.2672
	2015	0.8541	1.4512	0.4892	0.2664	7.2714
Carbacid	2019	0.5943	5.6940	0.1072	0.0777	6.5445
	2018	0.5983	9.4280	0.0970	0.0866	6.5278
	2017	0.5072	7.0132	0.1158	0.1002	6.5194
	2016	0.4762	7.0885	0.1323	0.1219	6.4888
	2015	0.4516	4.5106	0.1656	0.1325	6.4726
Eveready	2019	0.0000	1.5019	0.5574	-1.2214	5.3954
	2018	0.0000	2.5325	0.2372	-0.1947	5.7587
	2017	0.7874	2.6948	0.2890	0.3531	5.8880
	2016	0.0000	0.4538	0.5506	-0.1809	6.0346
	2015	0.0000	0.8578	0.4666	0.3070	6.1795
Unga Group	2019	0.2055	1.9559	0.4312	0.0512	7.0272
	2018	0.1477	2.1418	0.4353	0.0789	6.9971
	2017	0.6623	1.6579	0.5064	-0.0007	6.9757
	2016	0.2315	2.2986	0.4194	0.0609	6.9218
	2015	0.1898	2.3685	0.3824	0.0717	6.9381
BOC Kenya	2019	1.7625	1.9772	0.2776	0.0108	6.2994
	2018	1.5476	1.8821	0.2908	0.0151	6.3308
	2017	2.5743	1.9539	0.2770	0.0104	6.3480
	2016	0.8037	2.2831	0.2366	0.0346	6.3471
	2015	0.6833	2.0635	0.2615	0.0295	6.3657
EABL	2019	0.7824	0.8795	0.8145	0.1323	7.9398
	2018	0.7650	0.8349	0.8365	0.0897	7.8528
	2017	0.5664	1.0069	0.8202	0.1159	7.8239
	2016	0.4508	0.7707	0.8878	0.1642	7.7906
	2015	0.6625	1.0229	0.7937	0.1190	7.8257
Mumias	2018	0.0000	0.0290	1.9142	-0.9623	7.1969
	2017	0.0000	0.1093	0.9686	-0.2824	7.3819
	2016	0.0000	0.1807	0.7179	0.0555	7.4282
	2015	0.0000	0.1879	0.7097	-0.2273	7.3103
FTG Holdings	2019	0.0000	1.2125	0.5366	0.0197	6.3582
	2018	0.0000	1.1436	0.5580	0.0184	6.2646
	2017	0.0000	1.2907	0.5648	0.0237	6.2255
	2016	0.0000	1.5305	0.5272	0.0953	6.1822
	2015	0.0000	1.6410	0.5613	0.1348	6.1227
Kenya Orchards	2019	0.0000	1.9784	0.7601	0.0620	5.1336

Firm	Year	DPR	WCM	Debt financing	Profitability	Firm Size
	2018	0.0000	2.1138	0.7884	0.0776	5.0591
	2017	0.0000	1.7132	0.8577	0.0530	5.0345
	2016	0.0000	2.0214	0.8909	0.0422	4.9506
	2015	0.0000	2.0757	0.9235	0.3673	4.8961