# EFFECTS OF WORKING CAPITAL MANAGEMENT ON THE PROFITABILITY OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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# DECLARATION

This research project is my original work and has not been submitted for examination or award of degree in any other university.


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This research project has been submitted for examination with my approval as the university supervisor.


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Dr. Kennedy Okiro

# ACKNOWLEDGEMENT

# DEDICATION

I dedicate this research project to my beloved husband Wilberforce Mwenesi, my mum and dad, Mr. Joshua Evelia and Mrs. Margaret Evelia. I am grateful for all the sacrifices they have made to see me through this journey. Thank you so much for your understanding and morale.

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# LIST OF ABBREVIATIONS

ACP:            Average Collection Period

APP:            Account Payment Period

CCC:            Cash Conversion Cycle

CBK:            Central bank of Kenya

CMA:            Capital Markets Authority

GDP:            Gross Domestic product

ICP:            Inventory Collection Period

IT:             Inventory Turnover of DAYS

LEV:            Leverage

NSE:            Nairobi Securities Exchange

OC:             Operation cycle

ROA:            Return on Assets

ROTA:           Return on Total Assets

SPSS:           Statistical Package of Social Science

WC:             Working Capital

WCM:            Working Capital Management

# ABSTRACT

Working capital management is a crucial element of corporate finance because it affects the liquidity and profitability of a firm. Efficiency in Working Capital management is very vital in management of all firms since it enables proper growth and expansion. A descriptive research was done on the effect of working capital management on profitability of institutions listed at NSE. Data entailing a five-year period (2014-2018) was collected for 64 firms registered at NSE. The information was obtained from CMA, CBK, NSE and firms under study websites. Multiple regression, correlation and descriptive analysis was done. From the descriptive analysis, ROA displayed a mean annual average of 0.2267. The mean cash conversion period is 118.3832 days, the average collection period mean is 184.7706 days, mean average payment period 245.891 days. On average, businesses are in 264.4687 days of inventory converting stocks to sales, the leverage level mean is 13.5025 and the growth mean is 10.376. $R^2$ adjusted value was 0.616543, indicating that 61.6 per cent of the changes in ROA are reflected by independent variable (CCC, ACP, APP, Inventory turnover, Firm size, leverage and growth). Findings from Pearson's coefficient of correlation represent a significant positive association amongst ROA and cash conversion cycle (rho=0.773). A poor negative significant association between ROA and ACP (rho=-0.463), the findings also showed that association between APP and return on assets (rho=0.618) is strongly positive. The correlation amongst stock turnover and ROA (rho=-0.652) was strongly positive. Therefore, there has been a noteworthy positive association amongst firm size and ROA (rho=-0.216), there has been a significant positive association amongst leverage and ROA (rho=-0.523). Eventually, there was a noteworthy positive correlation amongst growth and return on assets (rho=0.013). The research recommends an organization should increase their average collection period, inventory turnover periods, leverage, size of the firm and cash conversion period so as to increase their presentation.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Working Capital Management (WCM) is said to be one of the principal fundamental factors enhancing firm's growth in terms of assets and profitability. It's one of the platforms that tends to provide a competitive edge for many organizations globally. The European Working Capital Annual Review (2012) published a report after a survey done in 35 European countries and reported that focusing on working capital can generate important benefits in terms of profitability hence avoiding financial problems. Deloof 2003 conducted a study which established that WCM is a predominant strategy for value creation and helps organizations be able to gain competitive advantage eventually through acceptable administration of working capital tools. According to (Lamberson, 1995) financial executives currently are finding it difficult to formulate strategies to help them in management of working capital in the corporate world.

On a theoretical perspective, there are various theories which supported this study objective like the trade-off theory, it states that firms should be able to choose the amount of debt finance and amount of equity finance to use by balancing expenses and benefits. It expresses existence of an ideal obligation proportion where the minimal advantage of obligation equivalents to its peripheral expense. Keynesian liquidity preference theory explains that when everything is held constant stakeholders desire liquid savings to illiquid ones and would only invest in long term investments at a premium.

Organizations need to put more resources in current assets so that they are in a position to meet their everyday obligations. Miller-Orr model theory of cash management will enable firms forecast everyday money inflows and outflows. It gives lower and upper limit of cash equalization to be set and decide on the target point.

In January 2018 NSE became the first Exchange in East and Central Africa to be admitted as full member of World Federation of Exchange (WFE). Kenya was ranked 61 among 190 economies in ease of doing business in 2018 by the World Bank reflecting a positive change of 23.7%. During the year NSE group recorded topline growth with total income increasing by 4% from Ksh.753 million in 2017 to Ksh.782 million in 2018.A revaluation deficit on the valuation of the NSE building and salary review alignment affected the groups profitability with profit after tax for the year reducing by 12% year on year to Ksh.190 million. Good working capital management drivers can enable organizations be able to mitigate uncertainty and avoid risky ventures and in return boost their performance. As indicated by (Haresh, 2012) the board choices that upgrade productivity has appeared to negatively affect liquidity; consequently, most firms face an intense exercise in careful control among profit and liquidity. Associations can't disregard WCM and its influence on an organization's benefit.

### 1.1.1 Working Capital Management

Pandey (2003) endorsed that WCM is the company's capacity to have the option to think of systems that are intended to screen and use current assets and liabilities, to guarantee effective activity of company's exercises. This guarantees the organization consistently measures up sufficient money streams to encounter its short-lived obligation commitments and brief operative expenses.

A business with adequate working capital can meet its commitments as they fall due. Late installments can bring about loss of provider limits, harmed credit ratings, loss of representative reliability, in most pessimistic scenarios non-installment of credit may prompt obligatory liquidation of advantages for reimburse lenders.

Working capital is crucial in ensuring the tasks of an association are smooth, since it guarantees that there is a successful utilization of assets that are in an association (Lazaridis and Tryfonidis, 2006). An association can't work without assets, they are required to pay work, purchase stock increasingly, satisfy clients need and purchase crude materials, all being financed by WC. Nonetheless, working capital can likewise be said to be a noteworthy determinant of the organization's survival or may be said to be the soul of an associations activity (Juan Garcia T. & Martinez S., 2007). Numerous associations couldn't work without sufficient working capital. Working capital administration helps association in figuring representative compensation, revelation of profits and advancement of another product offering.

### 1.1.2 Profitability

According to Lord Keynes (1936) profit is fundamental for any business undertaking to meet its financial and social commitment like a reasonable come back to speculators, higher wages to representatives, more prominent security to leasers and more profits to the proprietors. Profitability estimates how well an organization uses its assets in the motivation behind creating benefit and amplifying investors esteem. Profitability ratios are utilized to gauge the organization's capacity to create an arrival on its assets. An expansion in the proportions demonstrates an elevation in the businesses budgetary exhibition.

Return on assets assesses how adequately a business employs its advantages for produce an arrival. It's generally used to quantify productivity. Profitability proportions are helpful to get a knowledge into a business. They help an expert get a sign on the adequacy or ampleness of profits in a business.

The net profit proportion unveils the rest of the profit after all expenses of creation, organization, and financing have been lessened from sales and personal duties perceived. Return on resources demonstrates connection between return on resources plus all out net sales revenue. Return on equity refers to proportion of total compensation to shareholder's value. Return on assets is the marker that demonstrates the effectiveness of a firm creating benefits from every unit of shareholder's value, to disclose to what degree does the organization use speculations to procure a benefit (Alshatti, 2015). Return on assets (ROA) is a typical pointer embraced by firms (Allen and Gale, 2014). It recognizes and coordinates the incomes and expenses to demonstrate the benefit for everything like items and clients included inside a specific cost object. Gainfulness examination can be utilized to distinguish beneficial and unrewarding things.

### 1.1.3 Working Capital Management and Profitability

In corporate world working capital administration is a significant factor which directly affects productivity just as liquidity of an association. Ideal degree of liquidity ensures a firm to meet their momentary obligations. For a firm to be effective and secure its survival it should streamline its liquidity and profitability though pursuing its everyday activity. Legitimate improvement of working capital equalization means limiting the working capital prerequisite and acknowledging most extreme potential incomes (Ganesan, 2007).

There exists direct connection amidst profitability of the firm and its WC proficiency. Profitability is the guarantee for a firm to stay a going worry in the realm of business. Legitimate working capital guarantees that the organization expanded its benefit. Viable working capital administration will improve presence of an organization in the market because of its impact on productivity of a firm. In the event that a firm limits its interest in current resources, the subsequent assets can be reinvested in profitable activities to boost association's development openings and investors return. As indicated by (Richard &Laughlin 1980) an increasingly proficient WCM could produce a lesser CCC which may prompt higher productivity.

In dubious markets, associations must keep up a sufficient degree of money to meet running costs and simultaneously they should lessen the expense of holding money (Mateut and Zanchettin, 2013). As indicated by (Gill and Biger, 2013) extreme credit deals influence the associations' money streams and fitting credit approaches empower firms to draw in clients and increment productivity. From a stock administration point of view, proprietors and managers must locate an ideal level that adjusts the expenses and advantages of keeping up enormous and little stock (Shockley and Turner, 2014). An expansion in the current assets prompts negative impact on benefit while an expansion in current liabilities to total liabilities gives a beneficial outcome on productivity.

Financing activities of an association are for the most part controlled up by speculators who assume a significant job in it. The rate at which financial specialists discover an association or venture appealing is dictated by the benefit and danger of an association.

The significant determinant of hazard or venture is working capital. An expansion in the working capital of an association shows putting resources into the association isn't hazardous and there are higher odds of survival contrasted with putting resources into lower capital. Working capital of an association is significant determinant of gainfulness of a firm (Boisjoly, 2009). The assurance of methodologies to deal with the working capital successfully is significant to guarantee that an association can pull in speculators by expanding its benefit and diminishing its dangers. Nonetheless, inflexible deals arrangements and low credit deals would prompt loss of offers therefore, making benefits fall. Then again, high stock levels and adaptable credit deals strategy can add to expanded deals consequently more profit in the firm.

**1.1.4 Firms listed at the Nairobi Securities Exchange**

NSE is the main African Exchange in Kenya established in 1954.It offers exchanging office for the neighborhood and universal financial specialists hoping to pick up an introduction to Kenya and Africa's monetary development. It demutualized and self-recorded in 2014. It assumes a fundamental job in Kenya's economy since by empowering reserve funds and speculation just as helping the neighborhood and global organizations access financially savvy capital. It has got offers assembled in different areas and currently there are 64 recorded firms at NSE.

The groups profit after tax reduced by 12% from 216 million in 2017 to 191 million in 2018 due to increased administrative costs. Administrative expenses increased by 13 % from ksh 496 million in 2017 to ksh 560 million in 2018 mainly arising from salary review alignment and a revaluation deficit on the valuation of NSE trading.

Equities were on a descending pattern for the long stretch of August, with NASI, NSE 20 and NSE 25 declining by 0.5, 6.1 and 1.7 percent, separately, taking their YTD execution to gains/(misfortunes) of 5.1, (12.9) and (0.8 percent), individually. Many companies listed at NSE fail to consistently pay dividends to their shareholders and if they do the payout is low opposite of what the shareholders expect. Furthermore, some companies have witnessed corporate failure like the looks of Uchumi, Kenya Airways and Mumias Sugar.

## 1.2 Research problem

Working capital management centers on upholding effective levels of working capital elements, current assets and current mutual liabilities. The immediate problem faced by most financial managers is always focused on the best way to ensure the business's suitable survival and expansion in terms of managing working capital. It should be noted that any business is endangered by unwarranted and insufficient capital state, so a company is supposed to uphold a balance amongst liquidity and profitability that sometimes conflicts while doing daily activities. An effective WCM system not only helps companies cover their own needs but also boost their earnings (Smith 1973).

Companies listed at the NSE some of them face problems in working capital management which has led to their closure. These companies have restructured the country's retail shops and branches by laying off workers or closing down. This pattern has destroyed Kenya's hopes of achieving the vision's 2030 economic pillar. Many Kenyan companies do not retain the optimal working capital that has generated the firms ' financial problems. Excessive working capital hinders the aim of optimizing productivity with inadequate working capital causing liquidity problems.

Numerous organizations cited at NSE don't pay dividends reliably and when they do degree of expenses is extremely low in opposition to investor desires. Besides, there are progressively corporate disappointments seen like Mumias Sugar, Uchumi and Kenya Airways routes are in a negative position demonstrating total disintegration of investors riches that would require capital infusions for firms to return to going concerns. Thus the need to survey whether WCM factors impact benefit of firms recorded at NSE.

On empirical perspective, numerous investigations have been directed all around on connection between working capital administration and productivity. Internationally (Al-abass 2018, Adekola et al 2017; Attom 2016) conducted research on association amongst WCM and profitability. In any case, these investigations depend on two unique camps. One has a place with the individuals who contend that a firm should keep up shorter cash conversion cycle (CCC). Shorter CCC elevates the firm execution since it will bring about the decrease in interest in stocks just as record receivables. The other camp has a place with those that contend that putting resources into additional in working capital will bring about longer CCC. Longer CCC elevates company's presentation since it will bring about the expanded interests in inventories and receivables (Tauringana and Afrifa 2013). It's very clear from studies carried out previously that WCM practices can make weighty differences in carrying out of operations in businesses.

Previous studies from Kenyan case have shown similar varying trends. Notable examinations regarding relationship of working capital managing are from monetary, industrialized, retail, dairy, SME's and construction industries. The results from the studies showed that the different constituents of working capital influence profits dissimilarly depending on industry.

Caffaso (2010) his discoveries uncovered that there was an unfavorable yet non-huge connection among ROA and financing approach of WC this being predictable with the discoveries of Afza and Nazir (2007) where the size and influence of a firm showed a negative connection with ROA. Kungu, Wanjau, Waititu and Gekara (2014) directed an examination on outcomes of aggressive and conservativeness in contributing plus monetary strategies on execution of industrialized organizations in Kenya, and results turned out being a positive connection among execution and working capital in Kenyan industrial organizations. Apuoyo (2010) directed an examination on the connection between WCM strategies and productivity of companies cited at the NSE, the discoveries appeared there are huge contrasts between WCM approaches and profitability crosswise over various sectors.

Although segments of working capital affect profitability of an organization, the link between the various sections of working capital like inventory turnover, receivables and payables on cost-effectiveness of institutions registered at NSE is not well elaborated in the Kenyan context. This trend of association amongst profit and working capital administration influenced need for the examination. It's against this foundation that this present examination tries to examine the influence of working capital management on profitability of organizations listed at NSE. This study will help in responding to the exploration question, how working capital management influences profitability of firms listed at NSE?

## 1.3 Research Objective

The objective of this research was to establish the relationship between Working Capital Management and profitability of firms listed at the NSE in Kenya.

The research was driven by specific objectives as follows:

(i) To evaluate the association amongst cash conversion cycle and profitability of firms listed in NSE.

(ii) To assess association amongst the average collection duration and the profitability of NSE-listed firms.

(iii) To create a correlation amongst stock turnover days and the profitability of NSE-listed firms.

(iv) To evaluate the relationship amidst accounts payment period and profitability of NSE listed.

## 1.4 Value of the study

Outcomes of the investigation may be beneficial to administrators of businesses, regime, policy makers and academicians as follows:

Managers- It is best interest of managers to know that the consequences of decisions made will affect the might to indemnify short term obligations. Companies deal with a huge proportion of consumer goods therefore it's important to ensure their shelves are well stocked and this will only be possible if they have sufficient monetary reserves to ease purchases and settle suppliers on schedule.

Failure to do so may negatively affect company's credit ratings. Management needs to learn motive to make decisions that maximize shareholder's wealth, they need to know how much to plow back and how to capitalize this investment. This study will enable them identify actual combination of WC that consecutively will boost financial performance.

Government and policy makers-The government needs to be aware of the policies adapted in an economy by different industries to compile in decisive strategy how well the economy can develop, taking into account the different sectors. In this industry, the government will be able to obtain information on how to levy taxes and also be able to protect the sector from credit providers' exploitation. This research will provide industry knowledge to policymakers and how regulatory measures can be developed.

Scholars-This investigation will enhance scholars' expertise, especially on issues connecting to management of working capital and company productivity induction. It will also facilitate pre-examination of other issues affecting the role of working capital in other industries, providing a reference source.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

Chapter two part covers scope of archived writing validated with the investigation's concern so as to deliver a reason for comprehension and building up fitting extension in adjusting targets to existing information of working capital administration and profitability. It surveys hypotheses and parts of working capital administration and how they identify with profit. This part additionally involves observational proof lastly gives a synopsis of the entire section.

## 2.2 Theoretical Review

### 2.2.1 Trade off theory

Idea of capital structure where association's tradeoff the advantage of obligation against the expense of liquidation was presented by Myers (1984). It expresses that there exists an ideal obligation proportion where the minimal advantage of obligation equivalents to its peripheral expense. It shows that organizations may pick their optimal degree of working investment by looking at negligible expense and advantage of withholding money. An expansion in systems administration capital lessens the danger of powerlessness to pay obligations on time just as decreases benefits while expanding the expense of holding inventories and default hazard from accounts receivables. Firms should target expanding benefits while safeguarding liquidity on the grounds that a firm faces the danger of liquidation in the event that it focuses on benefits as it were.

There ought to be a trade-off between the two targets of the firm. The Trade-off hypothesis demonstrate that greater firms are probably going to flop because of expansion thus decrease of dangers on their administrations as their primary target is dealing with their liquidity. The connection among liquidity and dissolvability is opposite as expressed by Eljelly (2004). Legitimate administration of liquidity is to plan and control momentary resources and liabilities to lessen monetary dangers and keep away from superfluous interest in the benefits. With productive WCM company's liquidity will be improved and firm worth be augmented by accepting an ideal level which fulfills WC needs.

**2.2.2 Keynesian liquidity preference theory**

This speculation by John Keynes (1936) furthermore applies to working capital organization approach. It fights that when everything is held unfaltering, money related masters lean toward liquid dare to illiquid ones and would reliably claim superior for theories having a progressively drawn out advancement period. There are three factors behind people's desire to keep liquid cash, which is the transaction motive, precautionary and speculative motive.

The explanation for the transaction motive relates to the need for cash for the latest personal and business trade transactions. Precautionary motivation relates to the need to provide for unexpected spending contingencies or unintended opportunities for advantageous purchases. Under this speculative motive, capital is to gain benefit by identifying better than marketplace what the impending will present. This speculation infers that individuals hold money or stock for trades, hypothetical, protection and reimbursement purposes.

Pandey (2003) communicated that components need to place enough of available resources in current assets for the achievement of its ordinary assignments. This is the reason WCM is a need in the ordinary running of business practices and can't be neglected.

### 2.2.3 Miller- Orr Model theory

The Miller-Orr model created by Mill operator and Orr (1966) of cash administration is produced for organizations with vulnerability in real money inflows and money surges. This requires frequent cash movements by setting upper and lower cash balance control limits. It's used to determine an organization's goal cash balance. Lower frontier is established by administration based on risk amount the company is willing to accept from a cash default and this in effect relies on both access to lending on the effects of cash default. When cash balance hits lower limit, it should be refilled for example by selling marketable securities or withdrawal from a credit account. Amount necessary to return the balance back to return point is the amount of this withdrawal. It is the distance (usually set by the Miller-Orr m) amongst return point (Typically set as the lower limit together with one third of distance to the upper limit by Miller-Orr model) plus lower limit.

If cash balance surpasses the upper limit, the sum ought to be capitalized in marketable securities or deposited in a deposit account enough to decrease the balance back to return point. This is gain established by the model as distance amongst upper limit and return point. Upper limit of the minimum cost is calculated by reference to the cost holding costs of the brokerage and cash flow variance. Miller-Orr model found it to be reliable with substantial potential cost savings for companies.

## 2.3 Determinants of profitability on firms listed at NSE

Right now firms are confronting expanded weight from rivalry with other key players in the business. This has constrained numerous firms into liquidation and has made it hard for some others to stay productive. A portion of the variables advancing firm gainfulness are:

### 2.3.1 Inventory Management and Distribution

Inventory management incorporates procedures limiting costs, for example, stockpiling, protection and transport by keeping up vital degree of stock. Deloof (2003) accentuated that stock levels ought to be reserved at an adequate degree to diminish danger of stock outs and lost deals. Stock levels are to be dictated by the board of a specific firm since they will in general contrast in various organizations and enterprises. In the retail business stock administration is essential because of the positive connection amongst stock and productivity. As per (Choudhary and Tripathi,2012) clients like to be furnished with every one of their needs under one rooftop, which will in general abatement time wastage on quest for required merchandise.

This infers a store with higher stock turnover draws in more clients. Retail grocery stores must see how to keep up legitimate stock levels. At the point when stores convey to a lot of a thing that don't sell, they will in general stick with expenses of putting away and showing the things. At the point when stores have excessively little of a well-known thing they miss out on the potential income by not having loaded the thing on the racks.

Online innovation is consistently raising velocity and expanding continuous exactness which wind up dropping the expense of following stock to eventually get it into the client's hands. Most clients will in general adjust to internet shopping and get the merchandise

conveyed to their homes. This has empowered many retail locations increment their productivity and piece of the pie.

## 2.3.2 Trade Payables Management

Trade payables are because of credit buys recoded as trade receivables by supplier and trade payables by buyer. Trade credit is expensive when limits are accessible and installments made simpler to utilize the limits, it will bring about an expansion on the CCC because of lessening of time of trade payables. Great exchange credit terms will empower a firm boost gainfulness. Firms can attempt to encourage preparing of records payable with at least staff and administrative work.

All that is required is smooth records payable administration process, and there will be an expansion in benefit by diminishing work force and time spent on desk work. Ramachandran and Janakiraman (2009), Dissected the connection amongst working productivity and profit beforehand intrigue and expense of a paper Business in Indian capital administration. Its examination unveiled CCC and stock days having a negative association with income before premium and duty, whereas creditor liabilities days and records receivable days connected decidedly with profit before premium plus expense.

## 2.3.3 Trade Receivables Management

Trade receivable ought to be overseen so that exceptional obligations can be recouped effectively and rapidly. This can be accomplished by upholding severe gathering procedures and subsequent meet-ups on remarkable obligations. Credit arrangements affect deals, awful obligations and sum tied in trade receivables (Brigham & Houston, 2009).

Limits on early repayment of obligations ought to be urged to rouse borrowers on installment of obligations. Arrangements and methodologies on gathering strategies ought to be set and they ought not to be outrageous since they may drive off clients who may take their organizations somewhere else.

Ksenija (2013), explores how open organizations recorded in directed marketplace in republic of Serbia deal with accounts receivable during retreat periods. An example of 108 institutions were utilized. Accounts receivables approaches is analyzed in emergency time of 2008-2011. Examination demonstrates that between accounts receivables and return on absolute resource and working overall revenue and profitability, there is a positive yet no huge connection. This recommends the effect of receivables on association's benefit is changing in the midst of emergency.

### 2.3.4 Cash Conversion Cycle (CCC) Management

Cash conversion cycle finds amount of time WC is required in the operation of a business. This contains real parts of the WC: receivables for trade, inventories, and payables for trade. Operation cycle (OC) is determined at the point where CCC is resolved. OC's primary part refers to when stock is purchased until it is sold (stock turnover time). Subsequent part is the period from which products are traded using a loan till the credit is additionally referred to as the turnover time of exchange receivables. It also consolidates the time it takes from the supplier's procurement of stock until the supplier is paid (trade payables turnover time).The more drawn out the cycle the more extended money assets are tied up in the organizations OC and can't be utilized somewhere else. With a short CCC administration can put abundance momentary capital in enthusiasm winning ventures or gainful resources, which will respect constructive outcome on productivity.

As indicated by (Anser and Malik, 2013) most organizations improve their productivity by diminishing their CCC. This is accomplished by diminishing factors like receivables gathering period while extending credit installment period.

### 2.3.5 Product mix and brand management

This shields firms from good and bad times related with a specific item since firms that spend significant time in one explicit sort of thing are liable to any value unpredictability for that thing. Item blend will empower firms offer various items which will pull in wide scope of clients. Firms can find out about the gross net revenue from each sort of item, set diverse value focuses and locate the most beneficial mix of items. Firms must adjust contending brands and amplify the benefit related with each (Capron and Hulland, 1999).

### 2.3.6 Costs of goods sold

The expense of merchandise sold is a key variable to long haul gainfulness. A firm makes sense of these expenses by including the estimation of stock toward the beginning of a given period including new buys made during the period and furthermore calculating in the expense of delivery. The expense of products sold can be brought down by considering the beginning and wellspring of merchandise sold, mechanized and online procedures the business uses to get products, following shipments and keeping stock firmly coordinated with interest.

### 2.4 Empirical Literature Review

All-inclusive Baveld (2012) studied impact of working capital management on an organization's effectiveness during worldwide financial emergency 2008-2009 and non-emergency of 2004-2006 in Netherlands.

Accounts receivables, accounts payables, inventories plus CCC were broken down as factors. He discovered that the quantity of accounts receivables and firm gainfulness had a negative relationship during non-emergency period and no noteworthy relationship during the emergency time frame. The consequence of this examination may propose that the connection among accounts receivables and association's benefit is altered in the midst of emergency such that a few firms don't not have their financial records receivables at least in order to increase benefits throughout emergency periods.

Dash and Hanuman (2009) developed an empirical model of programming that gave profitability equal significance. Thanks to overabundance supply, it decided the open door misfortune a company has. It determined effect of findings on variations in the net current asset material. The model suggests estimation of WC overabundance transferable to higher yielding fixed assets by preserving sheltered place of liquidity. Most of the trade receivables sought by stock changes, current liabilities, lucrative rights, fixed assets, and shifts in real money are delicately influenced by the template.

Smith (1980) accepts that WCM is significant in view of its impact on the company's gainfulness, hazard and its worth. Dash having picked Smith's commitment saying that exchange off among gainfulness and hazard assume an essential job in WCM. Almost no WC expands benefit however diminishes liquidity as current assets is increasingly, exorbitant than fixed resources. Concentrating totally on liquidity will in general decline the normal productivity for the organization. A firm can shorten their interest in fixed resources by leasing or renting yet neither would they be able to escape putting resources into current resources. In fact, a business can get by without making profits, but without working capital it can't survive.

Lazaridis and Tryfonidis (2006) researched regarding connection among WCM and company profitability of named organizations on Athens Stock Trade. Examination was performed over 4year period on 131 recorded organizations. Gross benefit was observed to be emphatically corresponded to money related obligation. They further proposed that organizations listed on Athens Stock Trade utilize budgetary obligation to fund their working capital needs and increment benefit all the while. Thus it is recommended that the association's productivity can be upgraded by overseeing CCC and keep up its section like records receivable, accounts payables and stock at an ideal point. Gross working advantage address estimation for efficiency as opposed to net advantage in view of their intension of structure up a connection between accomplishment or breakdown of business movement with working extent and accomplice it further with other working components like CCC. Moreover, money related resources are deducted from all out resources so as to take out the inclusion of fund action from activity movement which may influence firms benefit.

Deloof, (2003) explored WCM and firm's profitability of 1009 huge Belgian non-money related enterprises from 1992 to 1996. His outcomes uncovered the critical negative connection between gross working pay with number of long periods of accounts receivable, inventories and records payables. It suggested that investors value can be enhanced by keeping up a base amount of long stretches of accounts receivable, inventories and records payables. Firms benefit is spoken to by gross working salary rather than ROA concerning firm that has generally money related resources on its balance sheet the working exercises had less effect on the ROA. Working capital guarantees adequate connection between the parts of the firm for productive blend which ensures capital sufficiency. He prescribed that reducing the period required radically to improve productivity and infer that with the ideal

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degree of WC association's worth can be expanded. The most effective method to arrive at ideal level is prickly in the executives.

Smith and Begemann (1997) expressed that the individuals who advanced WCM hypothesis established profitability and liquidity contained purposes of WCM. The issue emerged because of expansion of the organizations returns which could genuinely undermine its liquidity and the propensity to weaken returns. The study assessed the connection among conventional and elective working capital measures and tariff of profitability, explicitly in mechanical organizations detailed at Johannesburg Stock Trade. Results demonstrated lack of critical contrasts among the years concerning autonomous factors. The problem arose in view of the company's amplification of returns could really reduce its liquidity, and hunt for liquidity having a propensity to weaken returns. Measurable trial outcomes showed a conventional WC effect proportion, current obligation isolated by assets stream revealed the best association with return on initial capital investment, understood liquidity ideas set as present and speedy proportions enlisted irrelevant affiliations while just one of the more up to date WC ideas the thorough liquidity list showed critical relationship with return for capital invested.

In West Africa an examination completed by Kaleem (2015) on working capital administration practices in Ghana chose retail markets. The outcomes demonstrated that retail grocery stores in Ghana confronted liquidity difficulties and low productivity. The greater part of the assets in this retail outlets were tied up out of gear and inefficient money. He inferred that grocery stores ought to pre analyze the variables that decide the working capital with the goal that they can relieve against liquidity challenges.

The researcher proposed the requirement for more methodologies to moderate difficulties looked in WCM in the retail grocery stores. Olanrewaju et al (2011) from Nigeria considered independent ventures in Kwara state evaluated on stock administration. Regression analysis was utilized, it clarified the impact of stock an incentive on execution intermediary by profit in a duration of 10 years. A solid positive relationship was built up among stock and money related execution of independent ventures in Nigeria.

Studies completed on WCM in Kenya incorporate Mulogoli (2015) directed study on connection amongst WCM arrangements and execution of 41 non-monetary organizations recorded at the NSE for a multi-year time frame somewhere in the range of 2010 and 2014. He used regression analysis which brought out a positive association among WCM policies and financial presentation of the different institutions. With results showing 65.7 % change in budgetary execution when being an alteration of a single unit in venture arrangement whereas a unit variation in money related approach caused a 26.2% in monetary execution. He prescribed that budgetary administrative organizations should work with organizations to guarantee satisfactory detailing of WCM parts in monetary reports.

Mathuva (2010) tried to discover influence of working capital management on company profitability, his discoveries were prevailing extremely critical connection amongst the time it requires for an organization to gather money from their consumers and profitability. This research recommended of an extremely huge positive connection between the periods taken to change over stocks into deals. There exists an immense negative connection amongst period undertaken by associations to accumulate money from its receivables and advantage. This study established is a positive association amongst time taken to change over inventories into turnover and benefit, renouncing recognition by Falope and Ajilore

(2009). The research likewise established being a positive connection amongst time it takes an organization to recompense its payables and productivity.

Wainaina (2010) set up a connection amongst working capital and profitability of Kenyan small and medium businesses. The investigation concentrated on an example of 40 organizations whose business turnover was in two scope of 10 million and 500 million. The outcomes demonstrated no connection among CCC and gainfulness for organizations in the development, ICT and transportation segment. How at any point there was a positive connection among productivity and CCC of businesses in the general exchange and Agriculture.

Mathai (2010) researched on connection amongst working capital factors and profitability of Kenya wholesale store. The findings demonstrated a connection among WCM and profitability of hold retail store in Kenya yet with factors that unveiled both negative and positive affiliations. This study only concentrated on six supermarkets in Kenya. The retail market has been the subject of some significant changes over the ongoing past.The mix of social and financial conditions which won in the earlier years set off the arrival of significantly all the more seeing purchaser driven not by motivating force for more money yet moreover extended selectivity and an enthusiasm for higher quality shopping condition.

## 2.5 Conceptual Framework

It considers the hypothetical and reasonable issues encompassing exploration work and structure a cognizant and steady establishment that will support the improvement and distinguishing proof of existing factors (ACCA 2011).ROA in this study was used to be dependent variable and ACP, APP, IT, CCC, Size, Leverage and Growth as the independent variable.

**Independent Variables**                                    **Dependent Variable**

```
┌─────────────────────────┐
│  • Average collection   │
│    period               │
└─────────────────────────┘                ┌──────────────────────┐
                                            │                      │
┌─────────────────────────┐                │    Profitability     │
│  • Account payment period│ ──────────────▶│                      │
└─────────────────────────┘                │       ROA            │
                                            │                      │
┌─────────────────────────┐                └──────────────────────┘
│  • Cash conversion cycle│                        ▲
└─────────────────────────┘                       ╱
                                                  ╱
┌─────────────────────────┐                      ╱
│  • Inventory turnover days│                    ╱
└─────────────────────────┘           ┌──────────────────┐
                                       │     Growth       │
                                       │                  │
                                       │     Size         │
                                       │                  │
                                       │     Leverage     │
                                       └──────────────────┘
```

**Control Variable**
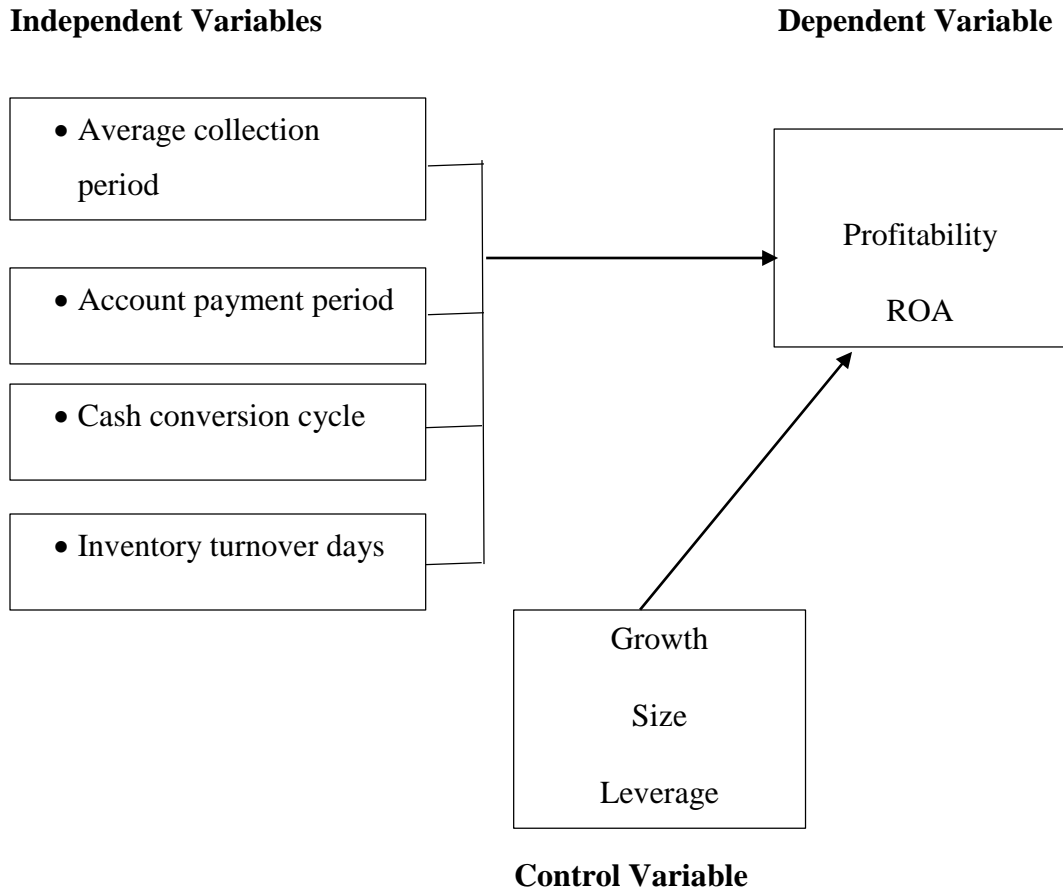
**Figure 2.1: Conceptual Framework**

**2.6 Summary of Literature Review**

From both the hypothetical and exact studies there exists similarities and contrasts on the connection amidst the effect of WCM and profitability of an organization. A few investigations both worldwide and locally, exhibit that there is a positive relationship while others recommend that there is a negative relationship. Over that a few investigations proposed of huge relationship while others irrelevant connections. There is requisite for businesses to initiate healthy WCM procedures that heighten profit and improve augmentation of investor's riches.

A dynamic way to pact with WCM is connected with higher returns and higher hazard while preservationist approach is associated with lower returns and lower chance. The fundamental target of WCM is to accomplish right symmetry amidst every part of working capital. In the event that an organization gives little consideration to WCM it will not be able react to brief capital requests and along these lines will wind up losing on its momentary speculation benefits.

In spite of the fact that reviews have been completed by different researchers, it's great to take note of that constrained research has been done on the connection among WCM and gainfulness of organizations listed at the NSE. This examination endeavored to add extra bits of knowledge to the connection amongst WCM and profitability of firm recorded at NSE. It will likewise expand the sample size of this investigation.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

The section involves systems, look into research design, information gathering procedures and information analysis promoted in this study. It depicts the testing method promoted just as the moral intention for data accumulation.

## 3.2 Research Design

As per Burns and Grove (2003) research is a blue print for directing an examination with greatest power over elements which could meddle with the legitimacy of discoveries. This investigation utilized a cross sectional descriptive research design. This alludes to a lot of strategies and techniques that are set to depict factors. It includes gathering information that portray occasions and arranges, delineates, organizes and depicts information. Creswell (2014) expressed that descriptive research design is an exploration structure that is worried about the states of interrelationships that occurs, feelings held, and forms going on, impacts that are clear or patterns that are creating. This aides, in bringing out exact depiction of phenomenon and no endeavor is made to change the conditions that exist.

## 3.3 Population

Populace is a gathering of individual people, articles or things from where tests are reserved for estimations. The number of inhabitants in this investigation are companies listed at NSE in Kenya, the objective population was made out of 64 companies listed at NSE.

**3.4 Diagnostic tests**

This research first carried out a multicollinearity test implementing variance inflation factors (VIF) and the tolerance levels, normality and heteroscedasticity was included. Jarque-Bera test was used to test normality assumption. Heteroscedasticity was conducted by Breusch-Pagan test.

**3.5 Data Collection Method**

Secondary information was gathered from reviewed yearly reports and financial accounts of 64 listed at NSE so as to decide connection amongst working capital management and profitability of firms listed at NSE in Kenya for a time of five years. The information was gathered from the firm's websites, CBK and NSE library.

**3.6 Data Analysis**

When information is gathered SPSS was utilized to help in the investigation. SPSS was utilized since it takes into consideration wide range front of the vast majority of the factual and graphical information investigation and is orderly. This study decided the connection among WCM and profitability of companies listed at NSE, a correlation method was chosen for motivation behind the investigation. A correlation design endeavors to decide the degree and bearing of connection between two factors under investigation. Regression analysis was utilized to comprehend which among the independent variables are identified with the dependent variable.

To analyze data for this study the general equation used by Samiloglu & Demirgunes (2008) was used.

Thus, $ROAY_t = \beta_0 + \beta_1 (CCCY_t) + \beta_2 (ACPY_t) + \beta_3(APPYt) + \beta_4 (ITYt)] + \beta_5 (SIZE\ Y_t) + \beta_6 (LEVY_t) + \beta_7 (GROWTH\ Y_t) + \varepsilon$

$ROA_t$= Return on Asset of the firms listed at NSEat time t

$\beta_0$ = Constant

$\beta$ = Coefficient of regression

t: time =2014, 2015, 2016, 2017 and 2018 years.

Y: firms listed at NSE

$\varepsilon$ = error term.

CCC-Cash Conversion Cycle

ACP-Average Collection Period

APP-Average Payment Period

IT    -Inventory Turnover of days

SIZE-Size=Natural Logarithm of Total Assets

LEV -Leverage =total debt ÷ total assets

GROWTH-(Sales t – Sales t-1) ÷ Sales t-1

## 3.7 Ethical Considerations

They refer to prescribed rules that a researcher is expected to follow while conducting a research (Mugenda & Mugenda, 2003). An approval letter was obtained from the university to allow conducting of the research. There was no doctoring of results to deviate from the purpose of the study. Works done by other researchers were well acknowledged through citations and data collected. Data collected was well handled and used with confidentiality and care it deserves.

# CHAPTER FOUR

# RESEARCH FINDINGS AND DISCUSSIONS

## 4.1 Introduction

Interpretation and conclusions of this study were summarized in this section as illustrated in the research method. This chapter addresses the reaction rate, respondents ' context, descriptive statistics, correlation and regression analysis. Findings of this research reflect impact on profitability of the NSE enterprises in Kenya of Working Capital Management.

## 4.2 Descriptive Statistics

Descriptive statistics establish mean value and std deviation of chosen manufacturing firms. Moreover, it gives maximum and minimum values of each variables.

**Table 4.1: Descriptive Statistics**

|                           | N   | Minimum | Maximum | Mean     | Std. Deviation |
|---------------------------|-----|---------|---------|----------|----------------|
| Return on Assets          | 320 | .00     | .84     | .2267    | .17586         |
| Cash Conversion Cycle     | 320 | -89.36  | 263.48  | 118.3832 | 41.26810       |
| Average Collection Period | 320 | 27.94   | 317.35  | 184.7706 | 78.81358       |
| Average Payment Period    | 320 | 30.96   | 432.56  | 245.8910 | 93.46227       |
| Inventory Turnover in Days| 320 | 2.50    | 479.06  | 264.4687 | 127.66186      |
| the size of the company   | 320 | 6.18    | 9.10    | 7.7254   | .67280         |
| Leverage                  | 320 | .16     | 28.72   | 13.5025  | 7.00010        |
| Growth                    | 320 | .12     | 22.07   | 10.3760  | 5.37930        |

**Researcher, (2019)**

The mean Return on Assets average annual change was 0.2267 for the firms researched on, suggesting that companies listed at NSE have a relatively low average annual change in Return on Assets. With a maximum of 0.84 and a std deviation of 0.17586 the indication is that returns on assets of institutions at NSE in Kenya vary quite significantly. Mean cash conversion cycle is 118.3832 days with a std deviation of 41.26810. Mean Average Collection Period is 184.7706 days with a std deviation of 78.81358. Findings reveal on average the firms take 245.891 days to pay its creditors with a std deviation of 93.46227. On average, institutions take 264.4687 days to transform their inventories into sales with a std deviation of 127.66186. Mean of the leverage is 13.5025 and a std deviation of 7.0001. It reveals leverage differ significantly and hence affect the return on assets of institutions at NSE in Kenya. Maximum leverage is 28.72 while lowest value of return on equity is 0.16. Mean of the growth is 10.376 and a std deviation of 5.37930. This shows that growth differs significantly and hence affects the Return on Assets of institutions at the NSE. The maximum growth is 22.07 while lowest value of growth is 0.12.

## 4.3 Diagnostic Tests

This study was able to make an establishing of how appropriate data was by investigating multicollinearity for the variables and the outcome was discussed below.

### 4.3.1 Tests of Normality

Correct application of the parameters of inferential statistics, assumption of normality is tested. This ascertains that kurtosis and skewness of information is tested. It for confirmation purposes on whether information under research is normally distributed. Data normality was tested using Kolmogorov-Smirnov Test and Shapiro-Wilk Test. The later test is best utilized when sample of data is small i.e. less than fifty. The test is reliable

particularly when determining on kurtosis and skewness of data. When findings is below

0.05, it reveals deviating from distribution of data that is normal.

**Table 4.2: Shapiro-Wilk Test of Normality**

| Variables | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | Df | Sig. |
| Return on Assets | .288 | 320 | .331 | .747 | 320 | .401 |
| Cash Conversion Cycle | .238 | 320 | .236 | .685 | 320 | .401 |
| Average Collection Period | .063 | 320 | .200 | .754 | 320 | .401 |
| Average Payment Period | .254 | 320 | .214 | .652 | 320 | .401 |
| Inventory Turnover in Days | .418 | 320 | .331 | .732 | 320 | .401 |
| the size of the company | .329 | 320 | .331 | .703 | 320 | .401 |
| Leverage | .349 | 320 | .331 | .616 | 320 | .401 |
| Growth | .309 | 320 | .331 | .742 | 320 | .401 |

**Researcher, (2019)**

In accordance to the results, the Kolmogorov-Smirnov values were 0.288 for Return on

Assets, 0.238 for cash conversion cycle, 0.603 for ACP, 0.254 for APP, 0.418 for inventory

turnover, 0.329 for size of the firm, 0.349 for Leverage and 0.309 for growth. Shapiro-Wilk

tested significant values were at 0.401 for Return on Assets, CCC, ACP, APP, inventory

turnover, size of the company, Leverage and growth each. This brings an implication that

p-value is far much greater than level 0.05 then the prediction that the data was normally

distributed cannot be denied. The tested results are therefore of the population emanating

from the normal distribution.

### 4.3.2 Test for Multi-collinearity

Multi-collinearity inflates the standard errors and gives spurious results hence it is necessary to test for presence of multi-collinearity before running an ordinary least square regression model. The research used a variance inflation factor (VIF) method to test for multi-collinearity of the study variables. The results as shown in Table 4.3 revealed that there was no presence of multi -collinearity since all the values of VIF were below 10. This implies that the use of OLS in estimating the effects of working Capital Management on the Profitability of firms listed at the NSE in Kenya was justified. In tandem with the study findings.

Raheman, Abdul, Afza, Talat, Qayyum, Abdul and Ahmad (2010) looked at influence of working capital management on the performance of the company in Pakistan from 1998 to 2007. Therefore, modified board information was used from 204 manufacturing firms registered at Karachi Stock Exchange (KSE). The findings show money exchange period, net trade cycle, and stock turnover in days ultimately affect the organizations ' efficiency. They believed that all manufacturing companies approached their collection and payment practices with all the problems. Furthermore, financial leverage, growth in revenue and firm size also had a notable effect on profitability of the group. The analysis revealed effective approaches for the individual working capital segments should be prepared.

**Table 4.3: Coefficients[a]**

|  | Collinearity Statistics Tolerance | VIF |
|---|---|---|
| Return on Assets | .500 | 2.000 |
| Cash Conversion Cycle | .415 | 2.451 |
| Average Collection Period | .498 | 2.034 |
| Average Payment Period | .387 | 1.805 |
| Inventory Turnover in Days | .242 | 2.083 |
| the size of the company | .493 | 2.027 |
| Leverage | .608 | 1.646 |
| Growth | .633 | 1.580 |

**Researcher, (2019)**

In the results above, all the VIFs are very low because they are well below 5. These values suggest that the coefficients are well estimated and the study should trust their p-values.

**4.3.3 Serial Correlation**

Wooldridge F-statistic serial correlation analysis was done to test whether the study variables were correlated in any way. Serial correlation test was done and as per the results it is clear that there is no correlation. This ensures the OLS estimates are not biased. The diagnostic results are found on Table 4.4 below

**Table 4.4: Serial Correlation**

| Test | Statistic |
|---|---|
| Durbin Watson | 2.345 |

**Researcher, (2019)**

The Durbin Watson serial correlation test results as per Table 4.5 indicated the value to be 2.345 which is more than 2 inferring no serial correlation.

## 4.3.4 Heteroscedasticity

This takes place when the error term of the variance is different across the observed data. The heteroscedasticity is very essential in examination of the difference that exists in the variance of the observation to the other (Godfrey, 1996). The research work maximised on the conduct of regression analysis of the independent variables Glejser test (1969). In accordance to this case, the assumption made is that if the value>0.05, then there should be very minimal problem of the heteroscedasticity. The findings for tests of Heteroscedasticity are displayed below:

**Table 4.5: Test for Heteroscedasticity**

| Coefficients[a] | | | | | |
|---|---|---|---|---|---|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| (Constant) | 1.125 | .012 | | 3.856 | .000 |
| Return on Assets | .096 | .056 | .112 | 0.258 | .148 |
| Cash Conversion Cycle | .256 | .089 | .349 | 0.481 | .86 |
| Average Collection Period- | -.174 | .070 | -.145 | -0.463 | .089 |
| Average Payment Period | .102 | .073 | .123 | 0.412 | .065 |
| Inventory Turnover in Days | .241 | .113 | -.331 | -0.412 | .065 |
| the size of the company | .254 | .224 | -.267 | -0.256 | .059 |
| Leverage | .125 | .064 | .151 | 0.256 | .059 |
| Growth | .212 | .079 | .126 | 0.683 | .049 |

a. Dependent Variable: Return on Assets
**Researcher, (2019)**

Basing on the level of output, the values obtained>0.05, hence there is no big difference existing in the variation of dependent to independent variables that were tested

## 4.4 Correlation analysis

When deciding whether there is a relation between two variables, (-) strong negative correlation and (+) perfect positive correlation, correlation analysis is applied. The relationship between Pearson's profitability and the independent variables of this study (CCC, ACP, APP, IT, company size, leveraging and growth) was analyzed.

**Table 4.6: Correlation Matrix**

|  | ROA | CCC | ACP | APP | IT | Firm size | Leverage | Growth |
|---|---|---|---|---|---|---|---|---|
| ROA | 1 | | | | | | | |
| CCC | 0.773 | 1 | | | | | | |
| ACP | -0.463 | -0.316 | 1 | | | | | |
| APP | 0.618 | 0.163 | 0.216 | 1 | | | | |
| IT | 0.652 | 0.161 | 0.233 | 0.462 | 1 | | | |
| Firm Size | 0.216 | 0.135 | 0.089 | 0.123 | 1.523 | 1 | | |
| Leverage | 0.523 | 0.253 | 0.123 | 0.235 | 0.098 | 0.632 | 1 | |
| Growth | 0.013 | 0.0152 | 0.0246 | 0.059 | 0.135 | 0.089 | 0.123 | 1 |

Correlation analysis displayed in Table 4.6 shows the relationship between the independent variables was significant at the confidence level of 95 percent and had strong relationships with the dependent variable. This implies that inter-variable differences amongst the independent variables are strong enough to affect the dependent variable relationship. Findings from Pearson's coefficient of correlation represent a significant positive association amongst ROA and cash conversion cycle (rho=0.773). Therefore, an increase in the cash conversion cycle may related with increased return on assets. Secondly, it

revealed a poor negative significant association between ROA and ACP (rho=-0.463). Third, the findings showed that association between average payment period and return on assets (rho=0.618) is strongly positive. Fourthly, the correlation amongst stock turnover and ROA (rho=0.652) was strongly positive. Therefore, there has been a noteworthy positive relationship between firm size and ROA (rho=0.216), there has been a significant positive association amongst leverage and ROA (rho=0.523). Eventually, there was a significant positive correlation between growth and return on assets (rho=0.013).

 In tandem with the study findings, Akoto, Awunyo Vitor and Angmor (2013) looked at the link between the work capital management and productivity activities of Ghana's registered manufacturing companies. The research used data from 1 13 registered manufacturing firms in Ghana obtained from annual reports covering the period 2005-2009. The investigation based on panel data techniques and regression analysis, a surprising negative correlation between Profitability and Receivable Account Days was found in the investigation. Nonetheless, the organizations ' Cash Exchange Time, Capital Asset Ratio, Size and Total Asset Turnover have a significant influence on performance. The report shows that managers can create incentives for their investors by having motivational powers capable of limiting their accounts to 30 days.

Gakure, Cheluget, Onyango and Keraro (2012) analyzed the association amongst working capital management and the performance of 15 manufacturing companies listed on the NSE between 2006 and 2010 and a total of 75 company-year comments. They used secondary information from an example of 18 organizations from the Nairobi Securities Exchange (NSE). A regression model was used to build the relationship between the dependent variable and the independent variables. Pearson's correlation and regression analysis was

used for the experiment. The results showed a strong negative relationship in the quality and liquidity of the firm. The investigation established a negative coefficient correlation amongst the transaction collection period, average transaction time, stock holding period and profitability, while it was found that the cash exchange cycle is positively associated with profitability. Nevertheless, although the general model was statistically significant, the effect of the independent variables was not statistically significant except for the average payment period.

## 4.5 Regression Analysis

Coefficient of determination describes degree to which changes in the dependent variable can be clarified by shift in the independent variables or the percentage of variance in the dependent variable (Return on assets) clarified by all five independent variables (CCC, ACP, APP, Inventory Turnover, Firm Size, Leverage and Growth).

## Table 4.7: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.804053 | 0.646501 | 0.616543 | 1.035581 |

Dependent Variable: Return on assets

Predictors: (Constant), CCC, ACP, APP, Inventory turnover, Firm size, Leverage and Growth.

Table 4.7 display the association between asset returns and independent variables is strong. Determination coefficients show that, provided the $R^2$ values of 0.646501 and adjusted to 0.616543, a strong relationship is formed between dependence and independent variables.

This indicates that 61.6 per cent of the changes in ROA are reflected by independent variable (CCC, ACP, APP, Inventory turnover, Firm size, leverage and growth).

**Table 4.8: ANOVA of the Regression**

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 172.989 | 7 | 24.71264 | 21.58054 | 0.00003 |
| Residual | 357.282 | 312 | 1.145136 | | |
| **Total** | **530.271** | **319** | | | |

Dependent Variable: Return on assets

Predictors: (Constant), CCC, ACP, APP, Inventory turnover, Firm size, Leverage and Growth

The test description also shows that the regression model substantially predicts the dependent variable. The F test shows the statistical significance of operating regression model. The P=0.00003, less than 0.05, shows that in general the regression model statistically predicts the outcome factor that suits the data well and significantly.

**Table 4.9: Coefficient of Correlation**

| | Un-standardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 3.77 | 0.451 | | 8.3592 | 0.004 |
| Cash Conversion Cycle | 0.315 | 0.079 | 0.245 | 3.9873 | 0.007 |
| Average Collection Period | - 0.212 | 0.079 | -0.126 | -2.6835 | 0.009 |
| Average Payment Period | 0.593 | 1.051 | 0.311 | 0.5651 | 0.023 |
| Inventory Turnover | 0.532 | 0.073 | 0.142 | 7.2876 | 0.004 |
| Firm Size | 0.473 | 0.073 | 0.045 | 6.4794 | 0.005 |
| Leverage | 0.782 | 0.121 | 0.146 | 6.4628 | 0.003 |
| Growth | 0.463 | 0.079 | 0.126 | 5.8607 | 0.001 |

a. Dependent Variable: Return on assets

Return on assets = $3.77 + 0.315X_1 - 0.212X_2 + 0.593X_3 + 0.532X_4 + 0.473X_5 + 0.782X_6 + 0.463X_7 + \varepsilon$

From table 4.9 above, the beta coefficients are all statistically significance (t test) to the predictors (CCC, ACP, APP, Inventory turnover, Firm size, Leverage and Growth) {null hypothesis: they are not zero hence they can be used to predict} with 95% confidence level given their P values are less than 5.

From results in Table 4.10, the research established that holding CCC, ACP, APP, inventory turnover, firm size, leverage and growth at zero return on assets will be 3.77. It was established that a unit rise in cash conversion cycle, while holding other factors (average collection period, average payment period, inventory turnover, firm size, leverage and growth) constant, will cause an increase in Return on assets by 0.315 (p = 0.007).

The study concluded in Table 4.10 that the transition time, average collection period, average payment period, stock turnover, company volume, leverage plus growth will be 3.77 at the rate of zero capital return. The unit decreases in the money conversion period while keeping other variables stable (ACP and APP), leading to an increase in asset returns by 0.315 (p= 0.007) (p= 0.007). Therefore, an improvement in the unit's average collection period while other variables are constant (cash transition time, average payment duration, stock turnover, corporate dimensions, leverage and growth) contributes to a decrease in asset returns by 0.212 (p= 0.009). In units with other variables (cash conversion periods, average collection duration, stock turnover, corporate size, leverage and growth), an improvement in asset return will be increased by 0.593 (p=0.023). The result is a continuous rise in an average payment period. A unit can increase stock turnover, while maintaining constant additional factors (CCC, ACP, APP, company size, leverage and growth).

Further, unit increase in average collection period, while holding other factors (CCC, APP, inventory turnover, firm size, leverage and growth) constant, will result to a decrease in Return on assets by 0.212 (p = 0.009). A unit increase in average payment period, while holding other factors (CCC, ACP, stock turnover, firm size, leverage and growth) constant, will lead to an increase in Return on assets by 0.593 (p =0.023).A unit increase in inventory turnover, while holding other factors (cash conversion cycle, average collection period, average payment period, firm size, leverage and growth) constant, will result to a rise in return on assets by 0.532 (p = 0.004). A unit increase in the size of the company will result in a return of capital of 0.473 (p=0.005), while the other variables will be constant (cash transfer period, average time of collection, mean payment, stock turnover, leverage and

growth). In addition, unit leverages would increase by 0.782 (p= 0.003) while keeping other variables (CCC, ACP, APP, stock turnover, size and growth) constant. CCC, ACP, average payment period, stock turnover, corporate size, leverage and growth are signed with 5% significance and 95% level of confidence in return on assets.

## 4.6 Interpretation of Findings

The examination revealed that only ACP had a negative impact on profitability of firms listed at the NSE in Kenya while CCC, APP, inventory turnover, firm size, leverage and growth are significant in return on assets had a positive impact on profitability of firms listed at the NSE in Kenya. Like the investigation discoveries Sharma and Kumar (2011) contemplated impact of Working Capital Management (WCM) on the gainfulness of Indian institutions. They utilized an example of 263 non-financial Bombay Stock Exchange (BSE) firms recorded on Bombay Stock Exchange (BSE) from 2002 to 2008. They examined the information by utilizing the Ordinary Least Square (OLS) regression method. Their findings were in logical inconsistency with all other previously stated investigations. They established a positive connection between Working Capital Management (WCM) and firm gainfulness, in spite of the fact that the CCC-ROA connection isn't measurably huge. The results found that account receivables are positively identified with ROA and that accounts payables are negatively identified with ROA. This implies when Indian firms increment their cash conversion cycle, productivity will be higher. The authors contend this is on the grounds that India is a developing business sector. Firms are viewed as progressively beneficial on the off chance that they give their customers more exchange credit; along these lines, they have more customers, which mean more deals prompting benefit.

Mathuva (2010) tried to establish effect of working capital management on the competitiveness of businesses, and found that the time it takes for a business to collect money from its clients and productivity was extremely critical. It also suggested that the times taken to turn stocks into deals be linked extremely positively. The time taken by organizations to earn cash from their receivables has a very negative relation and it has been found that a positive connection exists between time required to change stock to rotation and income, renouncing the Falope & Ajilore (2009). He likewise found that there is a positive connection amongst the time it takes the institution to pay its payables and productivity.

Wainaina (2010) developed a link amongst working capital and small and medium-sized enterprises profitable in Kenya. The research focused on the case of 40 firms with two revenues of 10 and 500 million. The work was undertaken. The results revealed no association between CCCs and productivity for growth, ICT and transport sectors. Whereas everywhere in the fields of general trade and agriculture there was a strong link between profitability and CCC.

Also, Wajahat Ali and Hassan (2010) investigation of 37 recorded organizations in the Stockholm Stock Trade (OMX) demonstrated no noteworthy connection among productivity and WCM approach when gathered as aggressive, defensive or conservative dependent on CCC. The proportion of current assets to total assets of the perceptions in this investigation was another intermediary variable for working capital administration, however the information bombed the test of normality. In light of this constraint, sham factors were utilized rather to catch impact of working capital administration approach on benefit.

The relationship between the organizations ' capacity to control the elements of their WC and their profitability was examined by Raheman and Nasr (2007); he researched effect on the profitability of companies on ACP, stock turnover in days, APP and the CCC. With a sample of 94 Pakistani firms he discovered that the profitability of the business is greatly influenced by the length of its CCC through the negative relation in the middle of working capital portion and firm profitability.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATION

## 5.1 Introduction

This section establishes the discussion drawn from data analysis in chapter four where it is presented as Summary, conclusions, limitations and recommendations for further studies.

## 5.2 Summary of Findings

The mean annual average change on return on asset for the companies surveyed amounted to 0.2267. This indicates the average annual return on assets for companies listed in the NSE in Kenya is relatively low. With an average of 0.84 and a std deviation of 0.17586, the return on assets of Kenya's NSE-listed companies varies considerably. With a std deviation of 41,26810, the mean cash conversion period is 118,3832 days. Average collection period mean value was 184.7706 days and a std deviation of 78.81358. The table shows also, in the case of lenders with a normal deviation of 93.46227, that on average companies take 245.891 days. On average, businesses are in 264.4687 days of inventory converting stocks to sales with a standard deviation of 127.66186. The leverage level mean is 13.5025 and the standard deviation is 7.0001. It indicates that leverage is substantially different and therefore has an impact on return on the capital of the NS firms in Kenya. Lowest value of return on assets is 0.16, having a maximum leverage of 28.72. The growth mean is 10.376 and the average is 5.37930. The growth of institutions registered under NSE in Kenya is significantly different and thus has an influence on return on assets. The maximum rise is 22.07 whereas the lowest growth rate is 0.12.

The research established return on assets and the cash conversion cycle have a significant positive relationship. Therefore, an increase in the cash conversion process can be related to an increased return on asset. Furthermore, the association amongst return on capital and the average collection period is shown to be a poor negative. Third, the results have shown that APP is strongly linked to the return on asset. Fourthly, the association amongst stock sales and return on asset was strongly positive. Furthermore, the association between firm size and ROA has been significantly positive, also the link amidst leverage and return on assets is significantly positive. Finally, the link amongst growth and ROA was significantly positive.

The finding in the study matches partly what Biwott (2011) where he was studying impact of working capital administration practices and the profitability of firms recorded at NSE and Runyora (2012) studying on the effect of working capital management on the profitability of the oil industry in Kenya found that ACP was negatively associated to profitability, however it differed in terms of APP, inventory turnover in dayss where he got negative association but this research got positive association. In addition to a clear adverse relationship between ACP and profitability, the analysis by Deloof (2003) of Belgian companies showed that the same results were partially consistent.

The study findings, however, partially corresponded to Maina's report (2013), which examined the association amongst WCM and financial presentation for manufacturing companies registered on the Nairobi Securities Exchange where he collected information from 2007 to 2011, he found positive relationship between APP and ROE but differed with this study showing negative relationship of days in inventory with profitability. The 2013 Almazari report, on connection amongst the WCM and profitability of organizations for

Saudi cement manufacturers, found a positive correlation between the size of the company and profitability in line with this study where firm size is found being positively linked with profitability.

## 5.3 Conclusions

The study explains why there is an extremely positive link between ROA and CCC. In this way, the CCC's growth is usually associated with an increased asset return. In addition, the inquiry suggests a slightly negative association between the ROA and the ACP. Third, the study shows that there is a strong positive link amidst average payment period and return on assets. Fourthly, studies demonstrate the substantially positive link between stock turnover and ROA. The study also showed that the relationship between firm size and asset return was surprisingly positive and that the relationship between leverage and asset return was extremely positive. Eventually, the study found that there was a very positive correlation between growth and asset return.

This study concluded that 61.6 per cent of variations in returns on asset is accounted for by independent variables (CCC, ACP, average period of payment, stock turnover, size of the business, leverage and growth).The investigation shows that the profitability of NSE-recorded firms in Kenya was negatively affected with ACP and positively affected only by CCC, APP, stock turnover, size of companies, leverage and growth.

## 5.4 Policy Recommendations

The research concluded a positive impact of average payables period on profitability of firms listed at the NSE in Kenya. It's recommended that sufficient strategies ought to be established by managers of these firms to improve and grow their profitability by managing

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their average payables period. Institutions listed at the NSE in Kenya and all firms in general should increase their average payables period as this will lead to an rise in financial performance and this translates to improved shareholder wealth which is the main goal of a firm. However, managers should be careful not to lose creditor goodwill in the process of increasing their average payables period.

The study recommends that firms listed at the NSE in Kenya should increase their average collection period, inventory turnover periods and cash conversion period in order to rise their performance.

Second, the research shows organizations in NSE in Kenya need to rise the leverage presently available to boost their profitability. Increasing leverages will improve productivity quickly. This could be enhanced by raising the level of obligation. This responsibility can be used to purchase more and ultimately sell volumes that interpret in more revenues into higher profitability.

Finally, the examination suggested that firms recorded at the NSE in Kenya should improve their firm size so as to better their profitability. Firm size needs to high in order to revamp the profitability of institutions listed at the NSE in Kenya. This can be done by increasing sales volumes.

## 5.5 Limitations of the Study

The entire process of data collection gathering research and report writing was expensive, and additional funds were required that called for full sacrifice in order to achieve the goals. The entire research cycle has been productive despite the limited financial resources. The researcher faced time constraints as well. Since the study used secondary data from several

sources including the; individual companies and the Nairobi Securities Exchange, obtained from several sources. The time was not enough for the entire exercise and review of data collection. It was well used, however, the limited time available.

This research has been conducted over a period of five years that may not be as conclusive as if, for example, twenty years were used for a much longer period. When a study period is longer, this means more information is used and, unlike when the study period is very short, provides more conclusive results from the analysis. Perhaps undertaking a similar study can lead to different conclusions in a longer period of time. Therefore, the introduction of control variables may have interfered with the exact position regarding the effect of the management of working capital on the productivity of the organizations under consideration. The profitability of NSE-listed companies, however, is not affected solely by working capital management and therefore it was necessary to include the selected control variables.

For research, this study only relied on secondary information. The research model did not capture qualitative factors that also impact financial performance. The findings can be more convincing in some studies by collecting all the details by using both quantitative and qualitative data.

## 5.6 Suggestions for Further Research

The examination focused on WCM and profitability of firms listed at the NSE in Kenya and depended on secondary information. An examination where gathering information depend on primary data like in depth questionnaires and interviews covering profitability of firms recorded at the NSE in Kenya is prescribed so as to supplement this research.

One of the proposed regions of further research is the incorporation of privately owned businesses in a comparable report. This may prompt a progressively summed up end on discoveries and arrangement proposals across the industry. The extent of this examination ought to be extended to incorporate different factors not identified in this investigation as caught by the error term.

The investigation focused on the last five years since it was the latest information accessible. Future investigations may utilize a scope of numerous years e.g. from 2000 to present. This can assist affirm or oppose this current examination's discoveries.

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# APPENDICES

## APPENDIX I: LIST OF FIRMS LISTED AT NSE.

1. Eaagads Limited

2. Kakuzi Limited

3. Kapchorua Tea Company Limited

4. Limuru Tea Company Limited

5. Sasini Tea and Coffee

6. Williamson Tea Kenya Limited

7. Car & General Kenya

8. Marshalls East Africa

9. Sameer Africa Limited

10. Barclays Bank of Keya

11. CfC Stanbic Holdings

12. Diamond Trust Bank Group

13. Equity Group Holdings Limited

14. Housing Finance Company o Kenya

15. I&M Holdings Limited

16. Kenya Commercial Bank Group

17. National Bank of Kenya

18. National Industrial Credit Bank

19. Uchumi Supermarket

20. Standard Chartered f Kenya

21. Cooperative Bank of Kenya

22. Express Kenya Limited

23. Hutchings Biemer Limited

24. Kenya Airways

25. Longhorn Kenya Limited

26. Nation Media Group

27. Scangroup

28. Standard Group Limited

29. TPS Serena

30. ARM Cement Limited

31. Bamburi Cement Limited

32. Crown-Berger (Kenya)

33. East African Cables Limited

34. East Africa Portland Cement Company

35. Kengen

36. KenolKobil

37. Kenya Power and Lighting Company

38. Total Kenya Limited

39. Umeme

40. British-American Investments Company

41. CIC Insurance Group

42. Liberty Kenya Holdings Limited (formally CFC Insurance)

43. Jubilee Holdings Limited

44.Kenya Reinsurance Corporation

45.Sanlam Kenya Plc (formally Pan Africa Insurance Holdings)

46.Centum Investment Company

47.Olympia Capital Holdings

48.TransCentury Investments

49.Nairobi Securities Exchange

50.A Baumann and Company

51.BOC Kenya Limited

52.British American Tobacco Limited

53.Carbacid Investments Limited

54.East African Breweries

55.Eveready East Africa

56.Kenya Orchards Limited

57.Mumias Sugar Company Limited

58.Unga Group

59.Safaricom

60.Atlas Development & Support Services

61.Home Afrika

62.Flame Tree Group Holdings Ltd

63. Kurwitu ventures

64.Stanlib Fahari I-REIT

Source: NSE website, 2019

| COMPANY | Year | Return on Assets | Cash Conversion Cycle (CCC) | Average Collection Period | Average Payment Period | Inventory Turnover in Days | Size | Leverage | Growth |
|---|---|---|---|---|---|---|---|---|---|
| Eaagads Limited | 2014 | 0.03 | 123.93 | 49.58 | 47.34 | 121.69 | 7.28 | 1.08 | 0.83 |
| | 2015 | 0.02 | 132.09 | 52.06 | 40.71 | 120.74 | 7.29 | 1.17 | 0.90 |
| | 2016 | 0.01 | 180.70 | 54.34 | 58.65 | 185.01 | 7.33 | 1.05 | 0.81 |
| | 2017 | 0.01 | 129.05 | 56.97 | 59.16 | 131.24 | 7.34 | 0.60 | 0.46 |
| | 2018 | 0.01 | 120.45 | 45.84 | 50.08 | 124.69 | 7.35 | 0.44 | 0.34 |
| Kakuzi Limited | 2014 | 0.03 | 32.36 | 51.26 | 86.25 | 67.35 | 7.66 | 1.52 | 1.17 |
| | 2015 | 0.04 | 47.98 | 53.75 | 89.84 | 84.07 | 7.72 | 1.56 | 1.20 |
| | 2016 | 0.04 | 34.72 | 47.55 | 101.72 | 88.89 | 7.79 | 1.25 | 0.96 |
| | 2017 | 0.03 | 27.15 | 50.68 | 97.45 | 73.92 | 7.83 | 1.48 | 1.14 |
| | 2018 | 0.04 | 29.72 | 44.42 | 72.99 | 58.29 | 7.92 | 0.94 | 0.72 |
| Kapchorua Tea Company Limited | 2014 | 0.05 | 8.49 | 36.54 | 36.95 | 8.90 | 8.27 | 1.52 | 1.17 |
| | 2015 | 0.04 | 12.80 | 34.57 | 30.96 | 9.19 | 8.32 | 0.16 | 0.12 |
| | 2016 | 0.04 | 15.14 | 47.45 | 41.01 | 8.70 | 8.35 | 3.08 | 2.37 |
| | 2017 | 0.04 | 12.17 | 46.71 | 42.71 | 8.17 | 8.38 | 2.99 | 2.30 |
| | 2018 | 0.03 | 16.20 | 45.72 | 40.78 | 11.26 | 8.41 | 1.85 | 1.42 |
| Limuru Tea Company Limited | 2014 | 0.01 | 223.77 | 71.23 | 432.56 | 137.56 | 7.69 | 1.30 | 1.00 |
| | 2015 | 0.02 | 217.81 | 67.19 | 424.31 | 139.31 | 7.72 | 1.24 | 0.95 |
| | 2016 | 0.00 | 124.70 | 62.60 | 319.25 | 131.95 | 7.79 | 1.56 | 1.20 |
| | 2017 | 0.02 | 147.34 | 66.83 | 353.80 | 139.63 | 7.84 | 3.42 | 2.63 |
| | 2018 | 0.00 | 125.11 | 70.89 | 304.79 | 108.79 | 7.75 | 2.63 | 2.02 |
| Sasini Tea and Coffee | 2014 | 0.04 | 25.44 | 94.78 | 103.86 | 34.52 | 7.72 | 2.88 | 2.21 |
| | 2015 | 0.04 | 20.99 | 98.61 | 109.87 | 32.25 | 7.79 | 2.73 | 2.10 |
| | 2016 | 0.03 | 42.87 | 109.26 | 99.05 | 32.66 | 7.83 | 3.16 | 2.43 |
| | 2017 | 0.04 | -4.05 | 80.72 | 112.83 | 28.06 | 7.92 | 6.36 | 4.89 |
| | 2018 | 0.05 | 45.32 | 80.83 | 63.04 | 27.53 | 8.27 | 5.86 | 4.50 |

| Company | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Williamson Tea Kenya Limited | 2014 | 0.02 | 122.69 | 159.25 | 40.36 | 3.80 | 7.69 | 5.73 | 4.40 |
| | 2015 | 0.03 | 123.31 | 158.32 | 39.52 | 4.51 | 7.88 | 6.22 | 4.78 |
| | 2016 | 0.03 | 118.18 | 153.63 | 41.45 | 6.00 | 8.03 | 5.73 | 4.40 |
| | 2017 | 0.00 | -10.18 | 154.90 | 167.58 | 2.50 | 7.15 | 5.10 | 3.92 |
| | 2018 | 0.02 | -10.18 | 154.90 | 167.58 | 2.50 | 7.14 | 3.59 | 2.76 |
| Car & General Kenya | 2014 | 0.06 | 211.78 | 29.36 | 259.37 | 18.23 | 7.84 | 3.59 | 2.76 |
| | 2015 | 0.04 | 159.55 | 27.94 | 205.38 | 17.89 | 7.85 | 3.71 | 2.85 |
| | 2016 | 0.03 | 172.53 | 36.34 | 231.50 | 22.63 | 7.90 | 5.24 | 4.02 |
| | 2017 | 0.04 | 195.95 | 38.53 | 247.03 | 12.55 | 7.95 | 5.39 | 4.14 |
| | 2018 | 0.04 | 263.48 | 46.66 | 325.31 | 15.17 | 8.01 | 5.55 | 4.26 |
| Marshalls East Africa | 2014 | 0.03 | 122.62 | 61.53 | 98.23 | 159.32 | 8.00 | 5.70 | 4.38 |
| | 2015 | 0.03 | 157.06 | 65.46 | 89.41 | 181.01 | 8.10 | 5.86 | 4.50 |
| | 2016 | 0.03 | 121.29 | 58.24 | 103.59 | 166.64 | 8.25 | 6.01 | 4.62 |
| | 2017 | 0.02 | 140.16 | 65.86 | 90.44 | 164.74 | 8.30 | 6.17 | 4.74 |
| | 2018 | 0.03 | 134.96 | 58.92 | 73.22 | 149.26 | 8.32 | 6.33 | 4.86 |
| Sameer Africa Limited | 2014 | 0.01 | 198.45 | 117.56 | 56.36 | 137.25 | 7.26 | 6.48 | 4.98 |
| | 2015 | 0.01 | 194.48 | 115.73 | 53.07 | 131.82 | 7.22 | 6.64 | 5.10 |
| | 2016 | 0.02 | 208.98 | 101.55 | 31.20 | 138.63 | 7.18 | 6.79 | 5.22 |
| | 2017 | 0.00 | 189.78 | 119.89 | 48.74 | 118.63 | 7.15 | 6.95 | 5.34 |
| | 2018 | 0.02 | 203.60 | 94.09 | 45.96 | 155.47 | 7.14 | 7.10 | 5.46 |
| Barclays Bank of Keya | 2014 | 0.03 | -82.25 | 54.21 | 206.31 | 69.85 | 6.81 | 7.26 | 5.58 |
| | 2015 | 0.02 | -40.03 | 53.84 | 195.22 | 101.35 | 6.86 | 7.41 | 5.70 |
| | 2016 | 0.03 | -89.36 | 57.45 | 217.15 | 70.34 | 6.95 | 7.57 | 5.82 |
| | 2017 | 0.01 | -71.16 | 51.66 | 188.73 | 65.91 | 7.01 | 7.73 | 5.94 |
| | 2018 | 0.01 | -0.49 | 44.14 | 193.08 | 148.45 | 7.09 | 7.88 | 6.06 |
| CfC Stanbic Holdings | 2014 | 0.02 | 35.09 | 78.65 | 93.21 | 49.65 | 7.49 | 8.04 | 6.18 |
| | 2015 | 0.03 | 66.34 | 107.65 | 96.62 | 55.31 | 7.64 | 8.19 | 6.30 |
| | 2016 | 0.03 | 59.87 | 89.28 | 71.45 | 42.04 | 7.79 | 8.35 | 6.41 |

| | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 0.03 | 22.67 | 77.76 | 87.72 | 32.63 | 7.91 | 8.50 | 6.53 |
| | 2018 | 0.00 | 26.71 | 100.90 | 108.67 | 34.48 | 7.84 | 8.66 | 6.65 |
| Diamond Trust Bank Group | 2014 | 0.05 | 180.30 | 56.32 | 73.25 | 197.23 | 8.27 | 8.81 | 6.77 |
| | 2015 | 0.04 | 170.12 | 46.92 | 80.81 | 204.01 | 8.32 | 8.97 | 6.89 |
| | 2016 | 0.04 | 146.53 | 50.00 | 71.43 | 167.96 | 8.35 | 9.12 | 7.01 |
| | 2017 | 0.04 | 188.92 | 54.40 | 67.47 | 201.99 | 8.38 | 9.28 | 7.13 |
| | 2018 | 0.03 | 152.89 | 49.50 | 49.69 | 153.08 | 8.41 | 9.44 | 7.25 |
| Equity Group Holdings Limited | 2014 | 0.03 | 110.35 | 156.32 | 197.23 | 151.26 | 7.66 | 9.59 | 7.37 |
| | 2015 | 0.04 | 100.89 | 144.46 | 163.25 | 119.68 | 7.69 | 9.75 | 7.49 |
| | 2016 | 0.04 | 96.60 | 130.15 | 207.20 | 173.65 | 7.15 | 9.90 | 7.61 |
| | 2017 | 0.03 | 72.19 | 167.82 | 321.86 | 226.23 | 7.33 | 10.06 | 7.73 |
| | 2018 | 0.04 | 39.56 | 210.68 | 423.67 | 252.55 | 7.47 | 10.21 | 7.85 |
| Housing Finance Company of Kenya | 2014 | 0.01 | 100.16 | 106.22 | 163.41 | 137.33 | 6.65 | 8.76 | 6.73 |
| | 2015 | 0.07 | 100.35 | 107.05 | 164.28 | 138.67 | 6.64 | 8.91 | 6.85 |
| | 2016 | 0.06 | 100.54 | 107.88 | 165.15 | 140.02 | 7.29 | 9.06 | 6.96 |
| | 2017 | 0.06 | 100.74 | 108.71 | 166.03 | 141.37 | 7.30 | 9.21 | 7.08 |
| | 2018 | 0.05 | 100.93 | 109.54 | 166.90 | 142.71 | 7.35 | 9.36 | 7.19 |
| I&M Holdings Limited | 2014 | 0.04 | 101.12 | 110.37 | 167.77 | 144.06 | 7.39 | 9.51 | 7.30 |
| | 2015 | 0.05 | 101.31 | 111.21 | 168.64 | 145.40 | 7.45 | 9.66 | 7.42 |
| | 2016 | 0.06 | 101.51 | 112.04 | 169.52 | 146.75 | 7.44 | 9.80 | 7.53 |
| | 2017 | 0.06 | 101.70 | 112.87 | 170.39 | 148.09 | 7.53 | 8.41 | 6.46 |
| | 2018 | 0.05 | 101.89 | 113.70 | 171.26 | 149.44 | 7.67 | 8.55 | 6.57 |
| Kenya Commercial Bank Group | 2014 | 0.06 | 102.09 | 114.53 | 172.14 | 150.78 | 7.72 | 8.70 | 6.68 |
| | 2015 | 0.01 | 102.28 | 115.36 | 173.01 | 152.13 | 7.74 | 8.84 | 6.79 |
| | 2016 | 0.11 | 102.47 | 116.19 | 173.88 | 153.47 | 6.75 | 8.98 | 6.90 |
| | 2017 | 0.08 | 102.66 | 117.02 | 174.75 | 154.82 | 6.72 | 9.13 | 7.01 |
| | 2018 | 0.08 | 102.86 | 117.86 | 175.63 | 156.16 | 6.68 | 9.27 | 7.12 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| National Bank of Kenya | 2014 | 0.08 | 103.05 | 118.69 | 176.50 | 157.51 | 6.65 | 9.41 | 7.23 |
| | 2015 | 0.06 | 103.24 | 119.52 | 177.37 | 158.86 | 6.64 | 8.07 | 6.20 |
| | 2016 | 0.07 | 103.44 | 120.35 | 178.25 | 160.20 | 6.33 | 8.21 | 6.31 |
| | 2017 | 0.09 | 103.63 | 121.18 | 179.12 | 161.55 | 6.38 | 8.35 | 6.42 |
| | 2018 | 0.08 | 103.82 | 122.01 | 179.99 | 162.89 | 6.46 | 8.49 | 6.52 |
| National Industrial Credit Bank | 2014 | 0.07 | 104.01 | 122.84 | 180.86 | 164.24 | 6.52 | 8.62 | 6.63 |
| | 2015 | 0.08 | 104.21 | 123.67 | 181.74 | 165.58 | 6.59 | 8.76 | 6.73 |
| | 2016 | 0.01 | 104.40 | 124.51 | 182.61 | 166.93 | 6.97 | 8.90 | 6.84 |
| | 2017 | 0.15 | 104.59 | 125.34 | 183.48 | 168.27 | 7.10 | 9.04 | 6.94 |
| | 2018 | 0.12 | 104.79 | 126.17 | 184.36 | 169.62 | 7.25 | 7.75 | 5.96 |
| Uchumi Supermarket | 2014 | 0.12 | 104.98 | 127.00 | 185.23 | 170.96 | 7.36 | 7.88 | 6.06 |
| | 2015 | 0.11 | 105.17 | 127.83 | 186.10 | 172.31 | 7.29 | 8.01 | 6.16 |
| | 2016 | 0.09 | 105.36 | 128.66 | 186.97 | 173.66 | 7.69 | 8.15 | 6.26 |
| | 2017 | 0.10 | 105.56 | 129.49 | 187.85 | 175.00 | 7.73 | 8.28 | 6.36 |
| | 2018 | 0.13 | 105.75 | 130.32 | 188.72 | 176.35 | 7.77 | 8.41 | 6.46 |
| Standard Chartered f Kenya | 2014 | 0.12 | 105.94 | 131.16 | 189.59 | 177.69 | 7.80 | 8.54 | 6.56 |
| | 2015 | 0.10 | 106.14 | 131.99 | 190.47 | 179.04 | 7.83 | 8.67 | 6.67 |
| | 2016 | 0.12 | 106.33 | 132.82 | 191.34 | 180.38 | 7.13 | 7.44 | 5.72 |
| | 2017 | 0.02 | 106.52 | 133.65 | 192.21 | 181.73 | 7.15 | 7.57 | 5.81 |
| | 2018 | 0.22 | 106.71 | 134.48 | 193.08 | 183.07 | 6.65 | 7.69 | 5.91 |
| Cooperative Bank of Kenya | 2014 | 0.17 | 106.91 | 135.31 | 193.96 | 184.42 | 6.82 | 7.82 | 6.01 |
| | 2015 | 0.17 | 107.10 | 136.14 | 194.83 | 185.76 | 6.94 | 7.95 | 6.11 |
| | 2016 | 0.16 | 107.29 | 136.97 | 195.70 | 187.11 | 6.18 | 8.07 | 6.20 |
| | 2017 | 0.13 | 107.49 | 137.81 | 196.58 | 188.45 | 6.18 | 8.20 | 6.30 |
| | 2018 | 0.15 | 107.68 | 138.64 | 197.45 | 189.80 | 6.78 | 8.33 | 6.40 |
| Express Kenya Limited | 2014 | 0.18 | 107.87 | 139.47 | 198.32 | 191.15 | 6.79 | 7.14 | 5.49 |
| | 2015 | 0.17 | 108.06 | 140.30 | 199.19 | 192.49 | 6.83 | 7.26 | 5.58 |
| | 2016 | 0.14 | 108.26 | 141.13 | 200.07 | 193.84 | 6.87 | 7.39 | 5.68 |

| Company | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 0.17 | 108.45 | 141.96 | 200.94 | 195.18 | 6.93 | 7.51 | 5.77 |
| | 2018 | 0.03 | 108.64 | 142.79 | 201.81 | 196.53 | 6.92 | 7.63 | 5.86 |
| Hutchings Biemer Limited | 2014 | 0.32 | 108.84 | 143.62 | 202.69 | 197.87 | 7.00 | 7.75 | 5.96 |
| | 2015 | 0.25 | 109.03 | 144.46 | 203.56 | 199.22 | 7.13 | 7.87 | 6.05 |
| | 2016 | 0.25 | 109.22 | 145.29 | 204.43 | 200.56 | 7.18 | 7.99 | 6.14 |
| | 2017 | 0.23 | 109.41 | 146.12 | 205.30 | 201.91 | 7.20 | 6.86 | 5.27 |
| | 2018 | 0.18 | 109.61 | 146.95 | 206.18 | 203.25 | 8.43 | 6.97 | 5.36 |
| Kenya Airways | 2014 | 0.21 | 109.80 | 147.78 | 207.05 | 204.60 | 6.25 | 7.09 | 5.45 |
| | 2015 | 0.27 | 109.99 | 148.61 | 207.92 | 205.94 | 6.21 | 7.21 | 5.54 |
| | 2016 | 0.25 | 110.19 | 149.44 | 208.80 | 207.29 | 6.18 | 7.32 | 5.63 |
| | 2017 | 0.20 | 110.38 | 150.27 | 209.67 | 208.64 | 6.18 | 7.44 | 5.72 |
| | 2018 | 0.25 | 110.57 | 151.11 | 210.54 | 209.98 | 7.57 | 7.56 | 5.81 |
| Longhorn Kenya Limited | 2014 | 0.04 | 110.76 | 151.94 | 211.41 | 211.33 | 7.58 | 7.67 | 5.90 |
| | 2015 | 0.47 | 110.96 | 152.77 | 212.29 | 212.67 | 7.62 | 6.58 | 5.06 |
| | 2016 | 0.37 | 111.15 | 153.60 | 213.16 | 214.02 | 7.64 | 6.69 | 5.14 |
| | 2017 | 0.36 | 111.34 | 154.43 | 214.03 | 215.36 | 7.64 | 6.81 | 5.23 |
| | 2018 | 0.34 | 111.54 | 155.26 | 214.91 | 216.71 | 7.97 | 6.92 | 5.32 |
| Nation Media Group | 2014 | 0.27 | 111.73 | 156.09 | 215.78 | 218.05 | 8.02 | 7.03 | 5.40 |
| | 2015 | 0.31 | 111.92 | 156.92 | 216.65 | 219.40 | 8.10 | 7.14 | 5.49 |
| | 2016 | 0.39 | 112.11 | 157.76 | 217.52 | 220.74 | 8.15 | 7.26 | 5.58 |
| | 2017 | 0.37 | 112.31 | 158.59 | 218.40 | 222.09 | 8.24 | 7.37 | 5.66 |
| | 2018 | 0.29 | 112.50 | 159.42 | 219.27 | 223.43 | 8.60 | 6.32 | 4.86 |
| Scangroup | 2014 | 0.37 | 112.69 | 160.25 | 220.14 | 224.78 | 8.65 | 6.43 | 4.94 |
| | 2015 | 0.06 | 112.89 | 161.08 | 221.02 | 226.13 | 8.69 | 6.53 | 5.02 |
| | 2016 | 0.68 | 113.08 | 161.91 | 221.89 | 227.47 | 8.72 | 6.64 | 5.10 |
| | 2017 | 0.03 | 113.27 | 162.74 | 222.76 | 228.82 | 8.75 | 10.37 | 7.97 |
| | 2018 | 0.33 | 113.46 | 163.57 | 223.63 | 230.16 | 8.00 | 10.52 | 8.09 |
| Standard Group Limited | 2014 | 0.26 | 113.66 | 164.41 | 224.51 | 231.51 | 8.03 | 10.68 | 8.21 |
| | 2015 | 0.26 | 113.85 | 165.24 | 225.38 | 232.85 | 8.11 | 10.83 | 8.33 |
| | 2016 | 0.24 | 114.04 | 166.07 | 226.25 | 234.20 | 8.15 | 10.99 | 8.45 |

| Company | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 0.19 | 114.24 | 166.90 | 227.13 | 235.54 | 8.06 | 11.15 | 8.57 |
| | 2018 | 0.22 | 114.43 | 167.73 | 228.00 | 236.89 | 8.02 | 11.30 | 8.68 |
| TPS Serena | 2014 | 0.27 | 114.62 | 168.56 | 228.87 | 238.23 | 8.10 | 11.46 | 8.80 |
| | 2015 | 0.26 | 114.82 | 169.39 | 229.74 | 239.58 | 8.15 | 11.61 | 8.92 |
| | 2016 | 0.21 | 115.01 | 170.22 | 230.62 | 240.92 | 8.24 | 11.77 | 9.04 |
| | 2017 | 0.26 | 115.20 | 171.06 | 231.49 | 242.27 | 8.60 | 11.92 | 9.16 |
| | 2018 | 0.04 | 115.39 | 171.89 | 232.36 | 243.62 | 8.00 | 12.08 | 9.28 |
| ARM Cement Limited | 2014 | 0.48 | 115.59 | 172.72 | 233.23 | 244.96 | 8.20 | 12.23 | 9.40 |
| | 2015 | 0.38 | 115.78 | 173.55 | 234.11 | 246.31 | 8.35 | 12.39 | 9.52 |
| | 2016 | 0.38 | 115.97 | 174.38 | 234.98 | 247.65 | 7.44 | 12.55 | 9.64 |
| | 2017 | 0.35 | 116.17 | 175.21 | 235.85 | 249.00 | 7.43 | 12.70 | 9.76 |
| | 2018 | 0.28 | 116.36 | 176.04 | 236.73 | 250.34 | 8.16 | 12.86 | 9.88 |
| Bamburi Cement Limited | 2014 | 0.32 | 116.55 | 176.87 | 237.60 | 251.69 | 8.17 | 13.01 | 10.00 |
| | 2015 | 0.40 | 116.74 | 177.71 | 238.47 | 253.03 | 8.22 | 13.17 | 10.12 |
| | 2016 | 0.38 | 116.94 | 178.54 | 239.34 | 254.38 | 8.26 | 13.32 | 10.24 |
| | 2017 | 0.30 | 117.13 | 179.37 | 240.22 | 255.72 | 8.33 | 13.48 | 10.36 |
| | 2018 | 0.38 | 117.32 | 180.20 | 241.09 | 257.07 | 8.32 | 13.63 | 10.48 |
| Crown-Berger (Kenya) | 2014 | 0.06 | 117.52 | 181.03 | 241.96 | 258.41 | 8.42 | 13.79 | 10.60 |
| | 2015 | 0.70 | 117.71 | 181.86 | 242.84 | 259.76 | 8.57 | 13.94 | 10.72 |
| | 2016 | 0.03 | 117.90 | 182.69 | 243.71 | 261.11 | 8.63 | 14.10 | 10.84 |
| | 2017 | 0.34 | 118.09 | 183.52 | 244.58 | 262.45 | 8.66 | 14.26 | 10.95 |
| | 2018 | 0.27 | 118.29 | 184.36 | 245.45 | 263.80 | 7.55 | 14.41 | 11.07 |
| East African Cables Limited | 2014 | 0.27 | 118.48 | 185.19 | 246.33 | 265.14 | 7.51 | 14.57 | 11.19 |
| | 2015 | 0.25 | 118.67 | 186.02 | 247.20 | 266.49 | 7.47 | 14.72 | 11.31 |
| | 2016 | 0.20 | 118.87 | 186.85 | 248.07 | 267.83 | 7.44 | 14.88 | 11.43 |
| | 2017 | 0.23 | 119.06 | 187.68 | 248.95 | 269.18 | 7.43 | 15.03 | 11.55 |
| | 2018 | 0.28 | 119.25 | 188.51 | 249.82 | 270.52 | 7.08 | 15.19 | 11.67 |
| East Africa Portland Cement Company | 2014 | 0.27 | 119.44 | 189.34 | 250.69 | 271.87 | 7.14 | 15.34 | 11.79 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2015 | 0.21 | 119.64 | 190.17 | 251.56 | 273.21 | 7.23 | 15.50 | 11.91 |
| | 2016 | 0.27 | 119.83 | 191.00 | 252.44 | 274.56 | 7.29 | 15.65 | 12.03 |
| | 2017 | 0.04 | 120.02 | 191.84 | 253.31 | 275.90 | 7.37 | 15.81 | 12.15 |
| | 2018 | 0.50 | 120.22 | 192.67 | 254.18 | 277.25 | 7.79 | 15.97 | 12.27 |
| Kengen | 2014 | 0.39 | 120.41 | 193.50 | 255.06 | 278.60 | 7.94 | 16.12 | 12.39 |
| | 2015 | 0.39 | 120.60 | 194.33 | 255.93 | 279.94 | 8.10 | 16.28 | 12.51 |
| | 2016 | 0.36 | 120.79 | 195.16 | 256.80 | 281.29 | 8.23 | 16.43 | 12.63 |
| | 2017 | 0.28 | 120.99 | 195.99 | 257.67 | 282.63 | 8.16 | 16.59 | 12.75 |
| | 2018 | 0.33 | 121.18 | 196.82 | 258.55 | 283.98 | 8.60 | 16.74 | 12.87 |
| KenolKobil | 2014 | 0.41 | 121.37 | 197.65 | 259.42 | 285.32 | 8.65 | 16.90 | 12.99 |
| | 2015 | 0.39 | 121.57 | 198.49 | 260.29 | 286.67 | 8.69 | 17.05 | 13.11 |
| | 2016 | 0.31 | 121.76 | 199.32 | 261.17 | 288.01 | 8.72 | 17.21 | 13.22 |
| | 2017 | 0.39 | 121.95 | 200.15 | 262.04 | 289.36 | 8.75 | 17.37 | 13.34 |
| | 2018 | 0.06 | 122.14 | 200.98 | 262.91 | 290.70 | 7.97 | 17.52 | 13.46 |
| Kenya Power and Lighting Company | 2014 | 0.72 | 122.34 | 201.81 | 263.78 | 292.05 | 8.00 | 17.68 | 13.58 |
| | 2015 | 0.03 | 122.53 | 202.64 | 264.66 | 293.39 | 7.44 | 17.83 | 13.70 |
| | 2016 | 0.35 | 122.72 | 203.47 | 265.53 | 294.74 | 7.63 | 17.99 | 13.82 |
| | 2017 | 0.28 | 122.92 | 204.30 | 266.40 | 296.09 | 7.77 | 18.14 | 13.94 |
| | 2018 | 0.27 | 123.11 | 205.14 | 267.28 | 297.43 | 6.92 | 18.30 | 14.06 |
| Total Kenya Limited | 2014 | 0.25 | 123.30 | 205.97 | 268.15 | 298.78 | 6.91 | 18.45 | 14.18 |
| | 2015 | 0.20 | 123.49 | 206.80 | 269.02 | 300.12 | 7.59 | 18.61 | 14.30 |
| | 2016 | 0.23 | 123.69 | 207.63 | 269.89 | 301.47 | 7.60 | 18.76 | 14.42 |
| | 2017 | 0.29 | 123.88 | 208.46 | 270.77 | 302.81 | 7.64 | 18.92 | 14.54 |
| | 2018 | 0.28 | 124.07 | 209.29 | 271.64 | 304.16 | 7.68 | 19.08 | 14.66 |
| Umeme | 2014 | 0.22 | 124.27 | 210.12 | 272.51 | 305.50 | 7.75 | 19.23 | 14.78 |
| | 2015 | 0.28 | 124.46 | 210.95 | 273.39 | 306.85 | 7.74 | 19.39 | 14.90 |
| | 2016 | 0.05 | 124.65 | 211.79 | 274.26 | 308.19 | 7.83 | 19.54 | 15.02 |
| | 2017 | 0.51 | 124.84 | 212.62 | 275.13 | 309.54 | 7.97 | 19.70 | 15.14 |
| | 2018 | 0.40 | 125.04 | 213.45 | 276.00 | 310.88 | 8.03 | 19.85 | 15.26 |

| Company | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| British-American Investments Company | 2014 | 0.40 | 125.23 | 214.28 | 276.88 | 312.23 | 8.05 | 20.01 | 15.38 |
| | 2015 | 0.37 | 125.42 | 215.11 | 277.75 | 313.58 | 7.02 | 20.16 | 15.50 |
| | 2016 | 0.29 | 125.62 | 215.94 | 278.62 | 314.92 | 6.99 | 20.32 | 15.61 |
| | 2017 | 0.34 | 125.81 | 216.77 | 279.50 | 316.27 | 6.94 | 18.46 | 14.19 |
| | 2018 | 0.42 | 126.00 | 217.60 | 280.37 | 317.61 | 6.92 | 18.61 | 14.30 |
| CIC Insurance Group | 2014 | 0.40 | 126.19 | 218.44 | 281.24 | 318.96 | 6.91 | 18.76 | 14.42 |
| | 2015 | 0.32 | 126.39 | 219.27 | 282.11 | 320.30 | 6.58 | 18.91 | 14.53 |
| | 2016 | 0.40 | 126.58 | 220.10 | 282.99 | 321.65 | 6.64 | 19.06 | 14.65 |
| | 2017 | 0.07 | 126.77 | 220.93 | 283.86 | 322.99 | 6.72 | 19.21 | 14.76 |
| | 2018 | 0.74 | 126.97 | 221.76 | 284.73 | 324.34 | 6.78 | 19.36 | 14.88 |
| Liberty Kenya Holdings Limited (formally CFC Insurance) | 2014 | 0.03 | 127.16 | 222.59 | 285.61 | 325.68 | 6.85 | 19.51 | 14.99 |
| | 2015 | 0.36 | 127.35 | 223.42 | 286.48 | 327.03 | 7.25 | 17.72 | 13.62 |
| | 2016 | 0.28 | 127.54 | 224.25 | 287.35 | 328.37 | 7.39 | 17.87 | 13.73 |
| | 2017 | 0.28 | 127.74 | 225.09 | 288.22 | 329.72 | 7.54 | 18.01 | 13.84 |
| | 2018 | 0.26 | 127.93 | 225.92 | 289.10 | 331.07 | 7.65 | 18.15 | 13.95 |
| Jubilee Holdings Limited | 2014 | 0.21 | 128.12 | 226.75 | 289.97 | 332.41 | 7.58 | 18.30 | 14.06 |
| | 2015 | 0.24 | 128.32 | 227.58 | 290.84 | 333.76 | 8.00 | 18.44 | 14.17 |
| | 2016 | 0.30 | 128.51 | 228.41 | 291.71 | 335.10 | 8.04 | 18.58 | 14.28 |
| | 2017 | 0.28 | 128.70 | 229.24 | 292.59 | 336.45 | 8.08 | 18.73 | 14.39 |
| | 2018 | 0.23 | 128.89 | 230.07 | 293.46 | 337.79 | 8.11 | 17.01 | 13.07 |
| Kenya Reinsurance Corporation | 2014 | 0.28 | 129.09 | 230.90 | 294.33 | 339.14 | 8.14 | 17.15 | 13.18 |
| | 2015 | 0.05 | 129.28 | 231.74 | 295.21 | 340.48 | 7.41 | 17.29 | 13.29 |
| | 2016 | 0.53 | 129.47 | 232.57 | 296.08 | 341.83 | 7.44 | 17.43 | 13.39 |
| | 2017 | 0.41 | 129.67 | 233.40 | 296.95 | 343.17 | 6.92 | 17.56 | 13.50 |
| | 2018 | 0.41 | 129.86 | 234.23 | 297.82 | 344.52 | 7.09 | 17.70 | 13.60 |

| Company | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sanlam Kenya Plc (formally Pan Africa Insurance Holdings) | 2014 | 0.38 | 130.05 | 235.06 | 298.70 | 345.86 | 7.22 | 17.84 | 13.71 |
| | 2015 | 0.30 | 130.24 | 235.89 | 299.57 | 347.21 | 6.43 | 17.98 | 13.81 |
| | 2016 | 0.35 | 130.44 | 236.72 | 300.44 | 348.56 | 6.43 | 16.33 | 12.55 |
| | 2017 | 0.43 | 130.63 | 237.55 | 301.32 | 349.90 | 7.05 | 16.47 | 12.65 |
| | 2018 | 0.41 | 130.82 | 238.39 | 302.19 | 351.25 | 7.06 | 16.60 | 12.75 |
| Centum Investment Company | 2014 | 0.33 | 131.02 | 239.22 | 303.06 | 352.59 | 7.11 | 16.73 | 12.86 |
| | 2015 | 0.41 | 131.21 | 240.05 | 303.93 | 353.94 | 7.15 | 16.86 | 12.96 |
| | 2016 | 0.07 | 131.40 | 240.88 | 304.81 | 355.28 | 7.21 | 16.99 | 13.06 |
| | 2017 | 0.77 | 131.59 | 241.71 | 305.68 | 356.63 | 7.20 | 17.13 | 13.16 |
| | 2018 | 0.03 | 131.79 | 242.54 | 306.55 | 357.97 | 7.28 | 17.26 | 13.26 |
| Olympia Capital Holdings | 2014 | 0.37 | 131.98 | 243.37 | 307.43 | 359.32 | 7.42 | 15.68 | 12.05 |
| | 2015 | 0.29 | 132.17 | 244.20 | 308.30 | 360.66 | 7.46 | 15.81 | 12.15 |
| | 2016 | 0.29 | 132.37 | 245.04 | 309.17 | 362.01 | 7.49 | 15.93 | 12.24 |
| | 2017 | 0.27 | 132.56 | 245.87 | 310.04 | 363.35 | 8.77 | 16.06 | 12.34 |
| | 2018 | 0.21 | 132.75 | 246.70 | 310.92 | 364.70 | 6.50 | 16.19 | 12.44 |
| TransCentury Investments | 2014 | 0.25 | 132.95 | 247.53 | 311.79 | 366.05 | 6.46 | 16.31 | 12.54 |
| | 2015 | 0.31 | 133.14 | 248.36 | 312.66 | 367.39 | 6.43 | 16.44 | 12.63 |
| | 2016 | 0.29 | 133.33 | 249.19 | 313.54 | 368.74 | 6.43 | 16.57 | 12.73 |
| | 2017 | 0.23 | 133.52 | 250.02 | 314.41 | 370.08 | 7.87 | 15.05 | 11.57 |
| | 2018 | 0.29 | 133.72 | 250.85 | 315.28 | 371.43 | 7.89 | 15.17 | 11.66 |
| Nairobi Securities Exchange | 2014 | 0.05 | 133.91 | 251.69 | 316.15 | 372.77 | 7.93 | 15.30 | 11.75 |
| | 2015 | 0.54 | 134.10 | 252.52 | 317.03 | 374.12 | 7.94 | 15.42 | 11.85 |
| | 2016 | 0.42 | 134.30 | 253.35 | 317.90 | 375.46 | 7.95 | 15.54 | 11.94 |
| | 2017 | 0.42 | 134.49 | 254.18 | 318.77 | 376.81 | 8.29 | 15.66 | 12.04 |
| | 2018 | 0.39 | 134.68 | 255.01 | 319.65 | 378.15 | 8.35 | 15.78 | 12.13 |
| A Baumann and Company | 2014 | 0.31 | 134.87 | 255.84 | 320.52 | 379.50 | 8.43 | 15.91 | 12.22 |

| Company | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2015 | 0.36 | 135.07 | 256.67 | 321.39 | 380.84 | 8.47 | 14.45 | 11.11 |
| | 2016 | 0.45 | 135.26 | 257.50 | 322.26 | 382.19 | 8.56 | 14.57 | 11.19 |
| | 2017 | 0.43 | 135.45 | 258.34 | 323.14 | 383.54 | 8.94 | 14.68 | 11.28 |
| | 2018 | 0.34 | 135.65 | 259.17 | 324.01 | 384.88 | 8.99 | 14.80 | 11.37 |
| BOC Kenya Limited | 2014 | 0.43 | 135.84 | 260.00 | 324.88 | 386.23 | 9.04 | 14.92 | 11.46 |
| | 2015 | 0.07 | 136.03 | 260.83 | 325.76 | 387.57 | 9.07 | 15.04 | 11.55 |
| | 2016 | 0.79 | 136.22 | 261.66 | 326.63 | 388.92 | 9.10 | 15.15 | 11.64 |
| | 2017 | 0.03 | 136.42 | 262.49 | 327.50 | 390.26 | 8.32 | 15.27 | 11.73 |
| | 2018 | 0.39 | 136.61 | 263.32 | 328.37 | 391.61 | 8.35 | 13.87 | 10.66 |
| British American Tobacco Limited | 2014 | 0.30 | 136.80 | 264.15 | 329.25 | 392.95 | 8.43 | 13.99 | 10.75 |
| | 2015 | 0.30 | 137.00 | 264.99 | 330.12 | 394.30 | 8.48 | 14.10 | 10.83 |
| | 2016 | 0.28 | 137.19 | 265.82 | 330.99 | 395.64 | 8.38 | 14.21 | 10.92 |
| | 2017 | 0.22 | 137.38 | 266.65 | 331.87 | 396.99 | 8.35 | 14.32 | 11.01 |
| | 2018 | 0.26 | 137.57 | 267.48 | 332.74 | 398.33 | 8.43 | 14.43 | 11.09 |
| Carbacid Investments Limited | 2014 | 0.32 | 137.77 | 268.31 | 333.61 | 399.68 | 8.47 | 14.55 | 11.18 |
| | 2015 | 0.30 | 137.96 | 269.14 | 334.48 | 401.03 | 8.56 | 14.66 | 11.26 |
| | 2016 | 0.24 | 138.15 | 269.97 | 335.36 | 402.37 | 8.94 | 13.32 | 10.23 |
| | 2017 | 0.30 | 138.35 | 270.80 | 336.23 | 403.72 | 8.32 | 13.43 | 10.32 |
| | 2018 | 0.05 | 138.54 | 271.64 | 337.10 | 405.06 | 8.53 | 13.53 | 10.40 |
| East African Breweries | 2014 | 0.56 | 138.73 | 272.47 | 337.98 | 406.41 | 8.69 | 13.64 | 10.48 |
| | 2015 | 0.44 | 138.92 | 273.30 | 338.85 | 407.75 | 7.73 | 20.47 | 15.73 |
| | 2016 | 0.43 | 139.12 | 274.13 | 339.72 | 409.10 | 7.73 | 20.63 | 15.85 |
| | 2017 | 0.40 | 139.31 | 274.96 | 340.59 | 410.44 | 8.48 | 20.79 | 15.97 |
| | 2018 | 0.32 | 139.50 | 275.79 | 341.47 | 411.79 | 8.49 | 20.94 | 16.09 |
| Eveready East Africa | 2014 | 0.37 | 139.70 | 276.62 | 342.34 | 413.13 | 8.54 | 21.10 | 16.21 |
| | 2015 | 0.46 | 139.89 | 277.45 | 343.21 | 414.48 | 8.59 | 21.25 | 16.33 |
| | 2016 | 0.44 | 140.08 | 278.29 | 344.09 | 415.82 | 8.67 | 21.41 | 16.45 |
| | 2017 | 0.35 | 140.27 | 279.12 | 344.96 | 417.17 | 8.65 | 21.56 | 16.57 |

| | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 0.44 | 140.47 | 279.95 | 345.83 | 418.52 | 8.76 | 21.72 | 16.69 |
| Kenya Orchards Limited | 2014 | 0.07 | 140.66 | 280.78 | 346.70 | 419.86 | 8.92 | 21.87 | 16.81 |
| | 2015 | 0.81 | 140.85 | 281.61 | 347.58 | 421.21 | 8.97 | 22.03 | 16.93 |
| | 2016 | 0.04 | 141.05 | 282.44 | 348.45 | 422.55 | 9.00 | 22.19 | 17.05 |
| | 2017 | 0.40 | 141.24 | 283.27 | 349.32 | 423.90 | 7.85 | 22.34 | 17.17 |
| | 2018 | 0.31 | 141.43 | 284.10 | 350.20 | 425.24 | 7.81 | 22.50 | 17.29 |
| Mumias Sugar Company Limited | 2014 | 0.31 | 141.62 | 284.94 | 351.07 | 426.59 | 7.76 | 22.65 | 17.41 |
| | 2015 | 0.29 | 141.82 | 285.77 | 351.94 | 427.93 | 7.73 | 22.81 | 17.53 |
| | 2016 | 0.23 | 142.01 | 286.60 | 352.81 | 429.28 | 7.73 | 22.96 | 17.65 |
| | 2017 | 0.26 | 142.20 | 287.43 | 353.69 | 430.62 | 7.36 | 23.12 | 17.77 |
| | 2018 | 0.33 | 142.40 | 288.26 | 354.56 | 431.97 | 7.42 | 23.27 | 17.88 |
| 58.Unga Group | 2014 | 0.31 | 142.59 | 289.09 | 355.43 | 433.31 | 7.51 | 23.43 | 18.00 |
| | 2015 | 0.25 | 142.78 | 289.92 | 356.30 | 434.66 | 7.58 | 23.58 | 18.12 |
| | 2016 | 0.31 | 142.97 | 290.75 | 357.18 | 436.01 | 7.66 | 23.74 | 18.24 |
| | 2017 | 0.05 | 143.17 | 291.59 | 358.05 | 437.35 | 8.10 | 23.90 | 18.36 |
| | 2018 | 0.58 | 143.36 | 292.42 | 358.92 | 438.70 | 8.26 | 24.05 | 18.48 |
| Safaricom | 2014 | 0.45 | 143.55 | 293.25 | 359.80 | 440.04 | 8.43 | 24.21 | 18.60 |
| | 2015 | 0.45 | 143.75 | 294.08 | 360.67 | 441.39 | 8.55 | 24.36 | 18.72 |
| | 2016 | 0.42 | 143.94 | 294.91 | 361.54 | 442.73 | 8.48 | 24.52 | 18.84 |
| | 2017 | 0.33 | 144.13 | 295.74 | 362.41 | 444.08 | 8.94 | 24.67 | 18.96 |
| | 2018 | 0.38 | 144.32 | 296.57 | 363.29 | 445.42 | 8.99 | 24.83 | 19.08 |
| Atlas Development & Support Services | 2014 | 0.47 | 144.52 | 297.40 | 364.16 | 446.77 | 9.04 | 24.98 | 19.20 |
| | 2015 | 0.45 | 144.71 | 298.24 | 365.03 | 448.11 | 9.07 | 25.14 | 19.32 |
| | 2016 | 0.36 | 144.90 | 299.07 | 365.91 | 449.46 | 9.10 | 25.29 | 19.44 |
| | 2017 | 0.45 | 145.10 | 299.90 | 366.78 | 450.80 | 8.29 | 25.45 | 19.56 |
| | 2018 | 0.07 | 145.29 | 300.73 | 367.65 | 452.15 | 8.32 | 25.61 | 19.68 |
| Home Afrika | 2014 | 0.84 | 145.48 | 301.56 | 368.52 | 453.50 | 7.74 | 25.76 | 19.80 |
| | 2015 | 0.04 | 145.67 | 302.39 | 369.40 | 454.84 | 7.93 | 25.92 | 19.92 |
| | 2016 | 0.41 | 145.87 | 303.22 | 370.27 | 456.19 | 8.08 | 26.07 | 20.04 |
| | 2017 | 0.32 | 146.06 | 304.05 | 371.14 | 457.53 | 7.19 | 26.23 | 20.15 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 0.32 | 146.25 | 304.89 | 372.02 | 458.88 | 7.19 | 26.38 | 20.27 |
| Flame Tree Group Holdings Ltd | 2014 | 0.30 | 146.45 | 305.72 | 372.89 | 460.22 | 7.89 | 26.54 | 20.39 |
| | 2015 | 0.23 | 146.64 | 306.55 | 373.76 | 461.57 | 7.90 | 26.69 | 20.51 |
| | 2016 | 0.27 | 146.83 | 307.38 | 374.63 | 462.91 | 7.95 | 26.85 | 20.63 |
| | 2017 | 0.34 | 147.02 | 308.21 | 375.51 | 464.26 | 7.99 | 27.00 | 20.75 |
| | 2018 | 0.32 | 147.22 | 309.04 | 376.38 | 465.60 | 8.06 | 27.16 | 20.87 |
| Kurwitu ventures | 2014 | 0.25 | 147.41 | 309.87 | 377.25 | 466.95 | 8.05 | 27.32 | 20.99 |
| | 2015 | 0.32 | 147.60 | 310.70 | 378.13 | 468.29 | 8.14 | 27.47 | 21.11 |
| | 2016 | 0.05 | 147.80 | 311.54 | 379.00 | 469.64 | 8.29 | 27.63 | 21.23 |
| | 2017 | 0.59 | 147.99 | 312.37 | 379.87 | 470.99 | 8.35 | 27.78 | 21.35 |
| | 2018 | 0.46 | 148.18 | 313.20 | 380.74 | 472.33 | 8.37 | 27.94 | 21.47 |
| Stanlib Fahari I-REIT | 2014 | 0.46 | 148.37 | 314.03 | 381.62 | 473.68 | 7.30 | 28.09 | 21.59 |
| | 2015 | 0.43 | 148.57 | 314.86 | 382.49 | 475.02 | 7.27 | 28.25 | 21.71 |
| | 2016 | 0.34 | 148.76 | 315.69 | 383.36 | 476.37 | 7.22 | 28.40 | 21.83 |
| | 2017 | 0.39 | 148.95 | 316.52 | 384.24 | 477.71 | 7.19 | 28.56 | 21.95 |
| | 2018 | 0.49 | 149.15 | 317.35 | 385.11 | 479.06 | 7.19 | 28.72 | 22.07 |