EFFECT OF CASH MANAGEMENT ON THE FINANCIAL PERFORMANCE OF THE COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I declare that this research project is my own work and it has not been submitted for any degree or examination 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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DEDICATION

I dedicate this work to my beloved parents who have tirelessly helped me to be who i am today. I owe you my success. I also dedicate this work to my siblings because of whom my patient has been strengthened. God bless you all.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

ANOVA - Analysis of Variance

CCC - Cash Conversion Cycle

NSE - Nairobi Stock Exchange

SPSS - Statistical Package for Social Sciences

UK - United Kingdom

WCM - Working Capital Management

ABSTRACT

The main objective of this study was to ascertain the effect of cash management on the financial performance of the companies listed at the Nairobi Securities Exchange. This study employed descriptive research design with the targeted population constituting of 15 companies listed at the Nairobi Securities Exchange. The study used secondary data obtained from the Nairobi Securities Exchange, Capital Markets Authority and the respective websites of the companies from the published financial statements for a period of 7 years, 2010 to 2016. Multiple regression and correlation analysis were carried out on the data to determine the relationships between components of cash management and the financial performance. The study established that cash conversion cycle had a positive but insignificant effect on the financial performance, size of the company had a negative and insignificant effect on the financial performance and leverage had a positive and significant effect on the financial performance of the companies listed at the Nairobi Securities Exchange. The study therefore recommends that the companies listed at the Nairobi Securities Exchange increase the proportion of debt in their capital structure since high leverage will improve the financial performance.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Cash management involves the process of cash collection, monitoring of cash and its application in investment activities. It is one of the key element for ensuring a company's financial stability and solvency (Hansen, 2005). It is worthy noting that any business entity, having the objective of maximizing on the profits must always want to acquire the necessary resources for the operation not. These resources needed are limited by ownership of the firms and supply. Money needed for any investment opportunities is also scarce and can only be availed because it was withheld from consumption.

Cash management has acquired a global concern in recent years. According to economist John Keynes (1990) business entities hold cash because of the following reasons. Transaction motive implies that persons hold cash for the payment of the normal day-to-day transactions, precautionary motive which means that people will hold cash to cater for any   emergencies that may arise and speculative motives which means that persons have expectations that at a future date the cost of some of their inputs may be low. They therefore set some money aside to take advantage of the low price and acquire bulk of the same for use or disposal when prices escalate. In summary, this motive entails holding cash to meet some planned expenditure.

1

It is unrealistic to suppose that every business payment bill will go through the bank account. When the firm has determined its future cash needs, it is prudent to plan their financing so as to gain control over it. If the shortage of cash is persistent, it indicates a state of under-capitalisation and the need for additional permanent capital; and unless this is obtained the entity may be forced out of business (Flick, 1998). According to the free cash flow theory of cash management (Huseyin, 1991), the management has the responsibility of holding cash to gain control over it in making investment decisions which can affect a business entity. Therefore, this will improve the financial performance of the business entities.

1.1.1 Cash Management

Hutchison (2007) defines cash management as the process which involves the collection and management of cash to ensure optimal cash balances by the business entities. The management of cash focuses at ensuring adequate cash is maintained by the business entities and any surplus is put into the correct use. Business entities have the duty of ensuring that the entities don't overuse overdrafts as the means of finance. When business entities over apply the overdraft facility ,they can make high returns but still struggle with maintaining adequate cash flows due to the following, making losses, seasonal businesses, delay from the length of credit given to customers and avoidable delays caused by poor administration such as failure to notify the involving department that

2

goods have been dispatched for them to invoice or cheques from debtors being made out incorrectly because invoices do not contain clear information(Hutchison, 2007).

Cash management entails cash forecasting. If entities know their demand for cash in the future, it is possible for any business entity to estimate the demand for cash at any point in time. Due to the uncertainty involved, determining the level of liquidity entails the forecasting of short term and long term cash demands with reference to investment by the firms ,their marketing demands and production activities. Cash forecast. Nevertheless, cash budgets are the best tools for the ongoing WC requirements. It is therefore advisable for the financial controller to carryout the cash forecasts on daily, weekly or monthly basis depending on how busy the entity is(Hutchison, 2007).

Cash budget enables us in the planning and controlling of cash receipts and payments. It provides information on the timing of expected cash flows and size of the cashflows over the projected period. Business entities need cash forecasts in order to prepare any cash budgets. Any forecasts in the short term are useful because the firm will be able to estimate the cash needed in the operations, anticipation of the short term finances and managing money market investments. In constructing a cash forecast a business entity must ensure that it accounts for cash inflows and outflows by an entity and be able to update any cash forecast.

Good cash management strategies should ensure that surplus cash is invested wisely. Short term surpluses can be put into the financial instruments bearing the following considerations in mind. The marketability the short term investments should be realizable and the profitability which is the fair rate of return for the risk incurred. In conclusion, we operate in a system where cash is the focal point of almost everything. Cash is required by the entrepreneur to enable him acquire and maintain other factors of production that is, capital, land and labor. However, holding cash has its opportunity cost and administration has a duty to cater for any risks of cash shortages which will reduce the profits of the firms. Cash management is measured by the cash conversion cycle, debt ratio, sales, current ratio and total assets (Gitman, 2008).

1.1.2 Financial Performance

According to Alfred (2007) financial performance is the measurement of how a business entity has utilized its resources to generate revenues. Financial performance is normally measured by the gearing ratios, profitability ratios and the liquidity ratios. Profitability ratios of any business entity portrays the picture of how well an entity has employed the resources efficiently, liquidity ratios deals with the capacity of business entities to accomplish the short term obligations and the gearing ratios indicates the extent of debt employment by the companies. This research will rely on return on assets in the measurement of the financial performance. The financial performance of business entities is determined the financial statements of the business entities which are collection of reports on the business entities financial results for a given period of time.

4

1.1.3   Cash Management and Financial Performance

The objective of the cash management is to ensure the financial health of a business entity which will ultimately improve the profitability for the shareholders. This can be achieved by ensuring that finance is available when needed since liquidity is the lifeblood of any business entity. According to Miller –Orr model approach (Miller and Orr, 1961), business entities should always maintain the optimal cash balances; and incase of any cash crisis the business entity should reverse past investment decisions by diverting from activities which are not key.

Business entities should ensure that the cash conversion cycle is as short as possible, it implies that the business organization need few resources to operate. when the cash conversion cycle is longer it implies that the sales growth is high which translates to higher profits. According to the cash conversion cycle theory (Gitman, 1974), the shorter the cash conversion cycle the better the financial performance.

1.1.4   Companies Listed at the Nairobi Securities Exchange

5

The Nairobi Securities Exchange is the market for the securities. The NSE is located in Kenya. The classification of the listed companies is on segment basis. Many of the listed companies have prioritized on the cash management strategies which are aimed at improving the financial performance. The companies listed at the NSE which have adopted the good cash management strategies have continually reported impressive financial results compared with the companies without any cash management strategies.

1.2   Research Problem

Business entities globally are faced with stiff competition due to technological changes and market forces of demand and supply. The business entities have been forced to look for alternatives in order to remain competitive in the provision of goods and services. Business entities have resorted to cash management strategies which are aimed at improving the financial performance. According to (Ebben and Johnson, 2011) the number of business entities which have employed modern cash management models globally have hit 1 million mark.

Cash management is an increasing trend in Kenya due to the benefits associated with it. Many corporate bodies in Kenya have adopted cash management models which are aimed at ensuring efficient cash management which will translate to improved financial performance for the stakeholders in the industry. Several studies have been carried out in cash management, Mose (2006) researched on the effect of cash management on the financial performance of insurance sector in Kenya between 2013 to 2015. The

6

population of study was 37 insurance companies in Kenya. However, a sample of 16 insurance firms was selected for the study. He used the primary data which was obtained using the questionnaires. ANOVA and simple regression model was employed in the analysis. He concluded that good cash management practices enhanced accountability have improved financial performance.

Mutegi (2012) concluded a research on the budgetary controls and financial performance of construction firms in from 2008 to 2012. The population of the study was 47 construction firms. However a sample of 26 construction firms was selected. The study used the secondary data in the analysis. The study sought to analyze various budgetary controls in improving the financial performance. Linear regression model was also employed. He concluded that budgetary controls significantly affected the financial performance of construction firms in Kenya.

Many studies conducted on cash management were not conclusive and their conclusions were varied. However, the primary problem of most of these studies is that the criteria for firm selection were not elaborate, the period of study was very short an average most of them were conducted in a 2 year period and the sample size was also very limited, hence the need for the current study but taking into considerations all the shortcomings from the earlier researches. This study will therefore seek to answer this research question; what is

7

the effect of cash management on the financial performance of the companies listed at the Nairobi Securities Exchange?

1.3 Research Objective

The objective of this research is to investigate the effect of cash management on the financial performance of the companies listed at the Nairobi Securities Exchange.

1.4 Value of the Study

Companies will greatly gain from the need for cash management since cash management is a key determinant of the success or failure of any business entity. Therefore, the management are able to determine best cash management strategies. For example the use of cash conversion cycle theory which proposes that the shorter the cash conversion cycle, it implies that the business organization needs few resources to operate.

It will act as a basis for making investment decisions by investors. Investors will always want to invest in the companies with efficient cash management models in order to get the value for their money. Cash management practices are key to success or failure of any business entity. Good cash management practices contributes to improved financial performance.

8

CHAPTER TWO: LITERATURE REVIEW

2.1   Introduction

This chapter explores the theories and empirical works on cash management, determinants of the financial performance, conceptual framework and ends with the summary of the literature review.

2.2   Theoretical Review

The following theories are related to cash management and they include, the Free-cash flow theory (Huseyin, 1991) which asserts that management has the responsibility of holding cash to gain control over it in making investment decisions, cash conversion theory (Gitman, 1974) which states that the larger the cash conversion cycle the better the financial performance, Baumol model approach (Baumol, 1952) and the Miller –Orr model (Miller and Orr, 1948) which proposed that the optimal bound the cash balance is the better the financial performance.

2.2.1   Free Cash Flow Theory

The theory asserts that, management has the responsibility of holding cash to gain control over it in making investment decisions (Huseyin, 1997) when cash is readily available investment is made easier by the managers. The management must always ensure that it invests in the activities which maximize the shareholders' returns. By holding sufficient amount of cash, the management is guaranteed in the investment in growth projects due to the availability of funds hence improved financial performance. Scarcity of funds means that the management will not be able to invest in any investment aimed at improving the welfare of the shareholders. Eljelly (2004) criticized the free cash flow theory by arguing that by managers holding too much cash they can easily make poor investment.

10

2.2.2 Cash Conversion Cycle Theory

According to Gitman (1974) the larger the cash conversion cycle, the better the financial performance. Cash conversion cycle is key in any business organization since the business organizations are able to know the amount of cash needed. Cash conversion cycle theory focuses majorly on the period of time the company takes to acquire the raw materials and the cash inflows as a result of the sale of the goods. Every individual business entity needs to analyze its cash conversion cycle this will enable them to make any improvements since it will affect the financial performance.

The shorter the cycle, it implies that business organizations need few resources to operate. When the cash conversion cycle is short, it implies that business organizations need few resources to operate. When the cash conversion cycle is longer it implies that the sales growth is high which translates to higher profits hence improved financial performance. Akinsulire (2003) criticized the cash conversion cycle theory by arguing that the cash conversion cycle should be as short as possible this will create more value for the shareholders.

2.2.3 Baumol Model Approach

According to Baumol (1952), Baumol model is a deterministic model of cash management which determines the optimal cash balances by the business entities. The Baumol model is based on the assumptions of certainty in the variables. The Baumol

11

model approach is based on the argument that choosing an optimal cash balances is like deciding the economic order quantity for inventory. The Baumol model approach assumes two major costs which are opportunity cost and transaction costs. Transaction costs are incurred when the business entity is in cash shortage it is forced to dispose the marketable securities which are in the short term.

This implies that the securities are converted from the earning form to non-earning form. The transaction costs arise as a result of holding cash in hand which brings about the opportunity cost which is equal to foregone interest income. The Baumol model makes some assumption which include: The annual cash requirement is known and is constant, the firm has a steady cash inflow requirement and the opportunity cost is based on the interest rate on short term marketable, securities and is known and constant.According to the model, The optimal cash balance held has a direct significant impact on the financial performance.

2.2.4   The Miller-Orr Model Approach

According to Miller and Orr (1961) business entities can determine an upper limit and return point of cash balances which influences the financial performance. The Miller-Orr Model approach majorly provides for cost efficient transactional balances and makes an assumption that the cashflows are uncertain, the cash between normally face random fluctuations between Upper bound and lower bounds. The cash balances can hit the upper

12

bound that implies that a business entity has excess cash which it can utilize to buy the marketable securities so that the cash balance is brought back to the optimal bound.

However, the cash balances can hit the zero mark which force the management to return to it the optimal bound. The management can accomplish this by selling and converting the securities into cash.The Miller – Orr Model is based on the basic assumptions which include, there is no specific underlying trend in the balances of cash over time and the optimal values of cash balances depends on the opportunity costs and the degree of fluctuations in the market. According to this model, the optimal bound the cash is the better the financial performance.

2.3 Determinants of Financial Performance of Listed Companies

Efficient cash management by any business entity will improve the financial performance. According to Harrington and Wilson (1989) financial performance of a business entity is the measurement on the extent of prudent employment of the assets of a business entity in generating the income for the business entity. It involves the measurement of the business entity's financial strength and weaknesses. The determinants of financial performance of listed companies include; corporate governance, company size, liquidity, macro-economic factors and leverage.

13

2.3.1 Corporate Governance

According to Alfred (2007) corporate governance practices entails the good traits which guide business organizations towards achieving the set goals and objectives. Corporate governance practices are key to success or failure of any business entity- good corporate governance practices contributes to improved financial performance of business entities and vice versa. Corporate governance focuses on the maximization of the value of the owners of the enterprises and the stakeholders. Due to challenges faced by many organizations during the period of global financial challenges, many business organizations have resorted to good corporate governance practices to improve the financial performance. As the environment evolves there is a new paradigm of doing business. Previously, profit was the most important reason for being in business. However, over the 21st century, the new key thing for business is now people, environment and profit. organizations are supposed to put more emphasis on good corporate governance practices.

2.3.2 Company Size

Any entity's isize deals with the capacity of the company to offer various goods and services. Gupta and Huefner (1989) argues that large business organizations are able to carry out diversifications which is aimed at the management of risks by reducing the risks associated with business entities. Large companies normally enjoy economies of scale

compared to smaller companies since large companies are able to take advantage of the monopoly power.

Monopoly power enables the large companies to change any price to their customers hence they make supernormal profits as a result of monopoly power hence improved financial performance. Large companies have the capacity to employ and remunerate high skilled professionals unlike the small companies which cannot afford to hire competent and qualified staff. That means the larger companies are able to remain competitive compared to smaller companies. If the company is competitive it means it is more profitable. Therefore, the larger the company the more profitable the company is and better the financial performance due to economies of scale(Alfred, 2007).

2.3.3 Liquidity

Liquidity measures the extent to which assets are traded in the market with no effect on the price of the asset. The livelihood of any business entity depends entirely on liquidity. Liquidity measures the extent to which assets are traded in the market with no effect on the price of the assets (Gardner, 1986). The livelihood of any business entity depends entirely on liquidity. It is the responsibility of the management to ensure that the finances are available on demand. Therefore, the management has a duty to address the following questions. How much liquid cash should be maintained, at what time will the institution

be in need of this cash, how economic is it to maintain that level of liquid cash and how safe is this cash at the institution cash safe or when cash is in transit.

Theories have been developed to solve these questions. To an extent, they have succeeded. Yet, in the current age of technological advancement and the dynamic economic trends, we too have to came up with better counter measures, which will accommodate these emerging issues in the corporate world. When a business entity has enough liquid assets, it is expected that the financial performance is better compared to a business entity with inadequate liquid assets because the latter cannot manage to realize cash when in need to cater for the obligations and is thus exposed to liquidity risks. Therefore, liquidity has a direct influence on the financial performance (Gibbs, 2007).

2.3.4 Macroeconomic Factors

The financial performance of a business entity can be affected by inflation changes, the fluctuations in the exchange rates, rate of change of interest rates and political instabilities which constitute the macroeconomic factors. If the political environment is stable, that means when business environment is free from political instabilities like wars, the business environment is favorable for trade hence the improved economic activities.

16

Higher business activities translates to improved financial performance and if there is political instability, the level of economic activities slows down. This will negatively affect the financial performance of the business entities (Hutchison,2007). When international relations are good, the business entities are able to carryout imports and exports trade activities. This will lead to improved financial performance. On the other hand poor international relations will hinder the movement of goods and services.

2.3.5 Leverage

Wood (1998) defines leverage as the extent of debt financing by an entity. A business entity which uses more debt in its capital structure is said to be highly leveraged and a business entity that uses less debt is said to be lowly leveraged. High amount of debt normally attracts the interest charge, however, prudent management of debt is beneficial to a company. The company will enjoy from the tax shield because the interest payments by the companies are not taxed. However, if the business entities don't manage the debts appropriately, the shareholders of that company risk losing their investment.

2.4 Empirical Review

Various empirical studies reviewed have presented varied conclusions. Early empirical literature which aimed to establish the effect of cash management on the financial performance proved that cash management played a key role to financial performance.

However, other empirical works reviewed revealed that cash management was insignificant to the financial performance.

Wahihenya (2013) examined the effect of working capital management on the profitability of the firms in Kenya from 2010 to 2012. The study sample was 11 firms across all the sectors in Kenya from the population of 67 firms. The study analyzed the working capital indicators which included inventory turnover period and cash conversion cycle. In the analysis, the Linear regression model was employed to establish t eh relationship between working capital and the profitability. He concluded that cash conversion cycle had insignificant effect on the profitability of firms in Kenya.

Maranga (2011) conducted a study to establish the relationship between working capital management and financial performance of the companies listed at the Nairobi Securities Exchange in Kenya between 2007 to 2010. Working capital management strategies among the companies listed at the Nairobi Securities Exchange. He analyzed the cash conversion cycle of the companies. He applied the linear regression model in the establishment of the relationships among the study variables. She concluded that cash conversion cycle had a significant positive relationship with the financial performance of the companies.

Mose (2016) conducted a study to study the effect of cash management practices on the financial performance of insurance firms in Kenya between 2013 to 2015. The population of the study was 37 insurance firms in Kenya, however a sample of 16 insurance firms

18

was selected for the study. He used the primary data which was obtained using the questionnaires . ANOVA and simple regression model was employed in the analysis. From the findings he established that cash budgets were powerful tools in the cash management and it was prudent for firms to do budgeting the control the activities of the firms. He concluded that good cash management practices enhanced accountability hence improved financial performance.

Mutegi (2012) conducted a research to establish the effect of budgetary controls on the financial performance of construction firms in Kenya from the period 2008 to 2010. The population of the study was 47 construction firms however, a sample of 26 construction firms was selected. The research used the secondary data in the analysis.
The study sought to analyze various budgetary controls in improving the financial performance. Linear regression model was employed, he concluded that budgetary controls had a significant effect on the financial performance of the construction firms in Kenya.

Uwalomwa (2013) studied the impact of cash management on the profitability of insurance firms in Nigeria from 2006 to 2011 102 insurance companies were considered for the study however, 27 insurance firms was the sample for the study. The research used secondary data which was obtained from the financial statements for analysis. Cash conversion cycle measured cash management and return on equity the profitability of the

insurance firms. He concluded that cash management had a positive impact on the financial performance.

Andy and Johnson (2010) conducted a study to assess the effect of cash management on the financial performance of the firms in the United States of America. The firms were selected from different sectors in the economy which included agriculture, insurance and construction sectors. The population of the study was 789 firms but a sample of 326 firms was selected for the study and they employed the linear regression and they employed the linear regression model in the study. The study involved the determination of cash conversion cycles and the return on assets which were the measures of cash management and financial performance. They concluded that cash management had insignificant effect on the financial performance of the firms in the United States of America.

Bosra (2013) conducted a survey to study the relationship between cash management and financial performance of insurance companies in India between t eh study period 2005 to 2010.Various working capital indicators were determined which included average collection period and cash conversion cycle. The study also carried out the linear regression analysis, from the study findings he concluded that cash management had no significant relationship with the financial performance of insurance companies in India.

20

Bhunia (2011) conducted a study on the effect of cash management on the financial performance of banks in Pakistan between 2006 to 2008. He used secondary data which was readily available to analyze the working capital management indicators which included inventory turnover ratio debtors turnover ratio and cash conversion cycle.

The researcher also employed a multiple regression model. He concluded that there was no significant relationship between cash management and financial performance of banks in Pakistan.

2.5   Conceptual Framework

Cash management
-        Cash conversion cycle
-        Debt ratio
-        Company size
-

Financial performance
-        Return on assets
-
-

Independent variables   **Dependent variable**
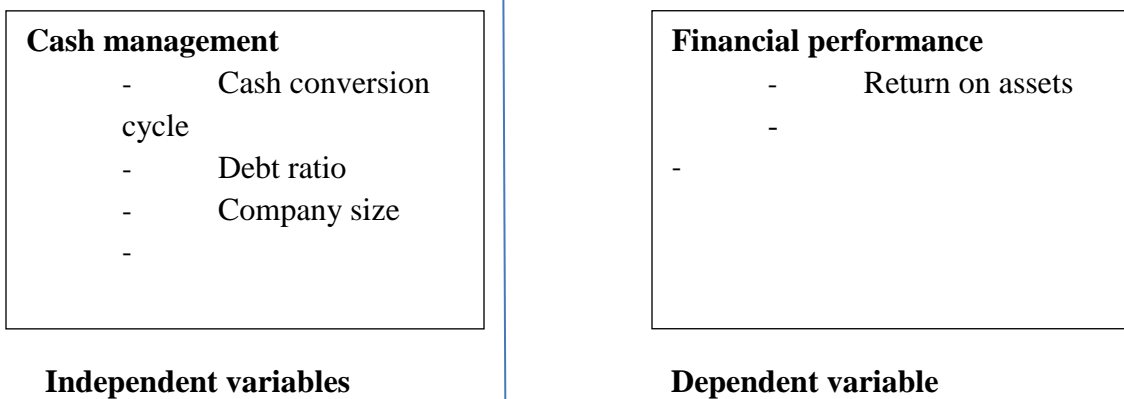
Figure 2.1: Conceptual Framework

The figure above shows the relationship between the independent variable which is the cash management and is measured by cash conversion cycle, debt ratio and company size while return on assets   measured the financial performance.

21

2.6   Summary of Literature Review

The literature review entails the theories that were discussed and are: the free cash flow theory (Huseyin, 1997), Cash Conversion Cycle theory (Gitman, 1974), Baumol Model Approach (Baumol, 1952) and Miller and Orr Model approach (Mirror and Orr, 1908). The determinants of financial performance were also highlighted and they include: corporate governance, company size, liquidity, macroeconomic factors and leverage and the empirical review which include Omondi (2012), Wahihenya (2013), Maranga (2011) Mose (2016), Mutegi (2012), Uwabmwa (2013), Andy and Johnson (2010), Bosra (2013), Bhunia (2011) and Rehma et al (2012) and with the conceptual framework. From the literature reviewed, most studies did not bring out clearly the criteria used to select the companies for study that means they suffered bias since they were not elaborate, the period of study were short in most of the studies and also the sample size was very small in some studies. Therefore, this research seek to address the above research gaps in conducting the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1   Introduction

This chapter presents the methodology that was   used to conduct the research. It outlines the research design, population of the study, data collection and data analysis that was applied in the study.

3.2   Research Design

Research design is the research plan (Wilson, 2005). This research used the descriptive research design since it describes a situation and will establish the relationship between cash management and the financial performance of the companies listed at the Nairobi Securities Exchange.

3.3   Population of the Study

Population is defined as a set of elements which are well defined (Mugenda, 2005). The target population was 15companies which covered the study period 2010 to 2016. A census survey was conducted to select the companies for the 7 year study period.

3.4   Sample and Sample Design

A sample is a subset of a population (Mugenda, 2005). The sample for this study was 15 companies listed at the Nairobi Securities Exchange. A census survey was conducted to arrive at the appropriate sample.

3.5   Data Collection

Data collection involves the process of gathering, evidence to confirm the insights of a phenomenon (Mugenda, 2005). This research used the secondary data which was obtained from the Central Bank of Kenya, the Nairobi Securities Exchange and the respective websites of the companies.

3.6 Data Analysis

This research   used cash conversion cycle, company size and debt ratio in the analysis. Secondary data was   tabulated and analyzed by the help of the descriptive and inferential statistics and the ANOVA. The following multiple linear regression model was used.

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e$$

Where Y is the financial performance

x_1 is the cash conversion cycle

x_2 is leverage as measured by debt ratio

x_3 is the company size as measured by logarithm of assets

24

3.6.1   Test of Significance

The study employed an F-test which measured the variables under the study at the 5% level of significance.

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This section presents the analysis of the data obtained. In section 4.2 data is analyzed in terms of descriptive statistics and in section 4.3, data was analyzed in terms of inferential statistics which included correlation analysis, regression analysis and the analysis of the variance and section 4.4 presents discussions of the findings from the analysis that was done.

4.2 Descriptive Statistics

The independent variables analyzed here included the cash conversion cycles, company size and leverage while the dependent variable is the return on assets. Data was analyzed for the 7 year period, the findings of the means of the debt ratio, logarithm of total

assets, cash conversion cycle and return on assets were computed and recorded in the graphs   below.

4.2.1 The Average Trend Analysis of the Cash Conversion Cycle

The findings of the cash conversion cycle were recorded in the graph below.
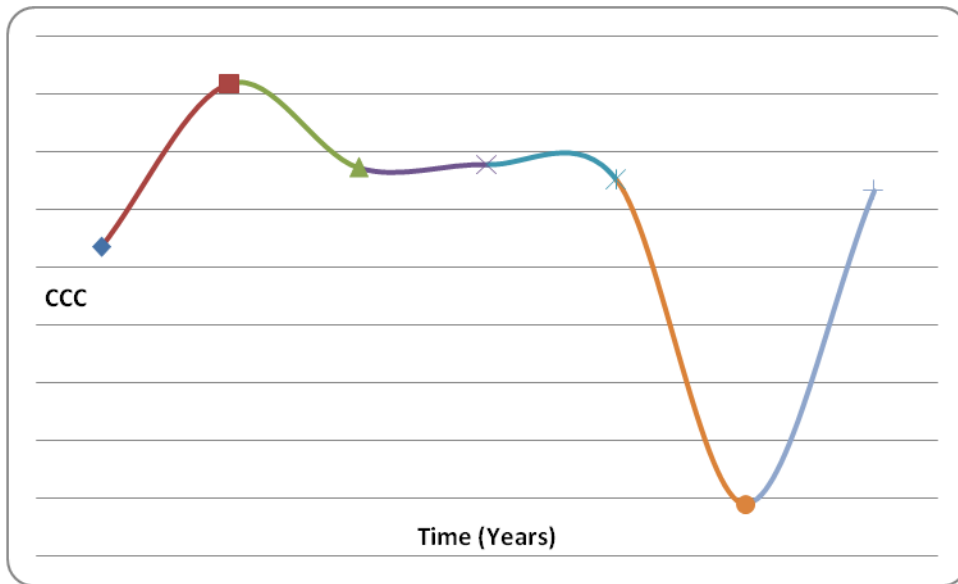
Figure 4.1:Cash Conversion Cycle

Source: Research Data (2017)

On average, a CCC of 23.62 was recorded in the year 2010, in the year 2011 the cash conversion cycle was 51.92, in the year 2012 the cash conversion cycle was 37.35, the cash conversion cycle in the years 2013, 2014, 2015 and 2016 were 35.14, -20.95 and 33.34 respectively. The negative cash conversion cycle implies that the company gets paid by the customers long before they pay their suppliers.
26

4.2.2 The Average Trend Analysis of the Logarithm of the Total Assets

The size of the company was analyzed over the 7 year period by the logarithm of the total assets from 2010 to 2016 and the findings of the study and the trend of performance were recorded in the graph below.
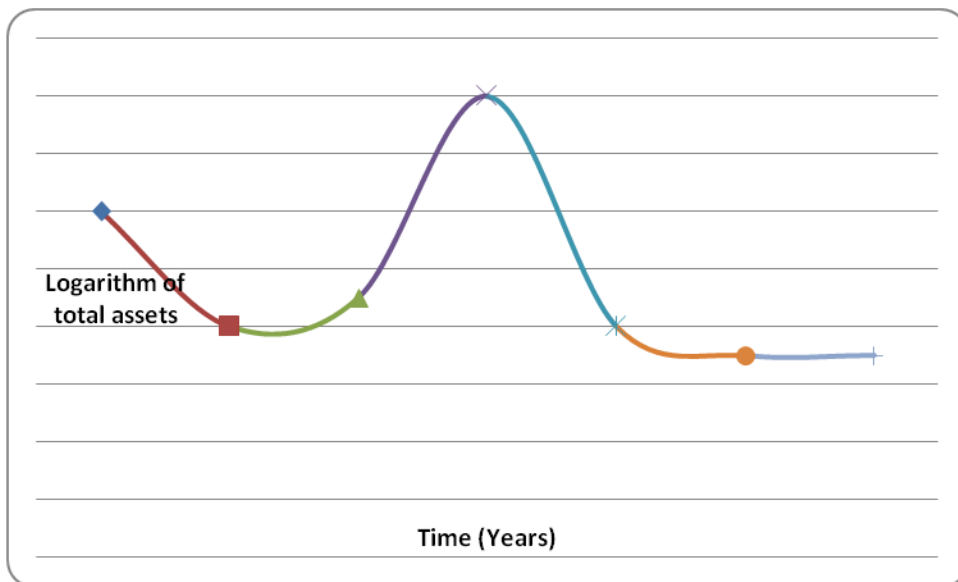
Figure 4.2: The Average trend analysis of the logarithm of total assets

Source: Research Data (2017)

Over the seven year period that was analyzed the values of the size of the company was 9.70, 9.80, 9.89, 10.05, 9,98 and 9,87 for the years 2010, 2011, 2012, 2013, 2014, 2015 and 2016 respectively.

27

4.2.3 The Average Trend Analysis of the Debt Ratio

The leverage of the companies was analyzed for the seven year period by the debt ratio recorded in the graph below.
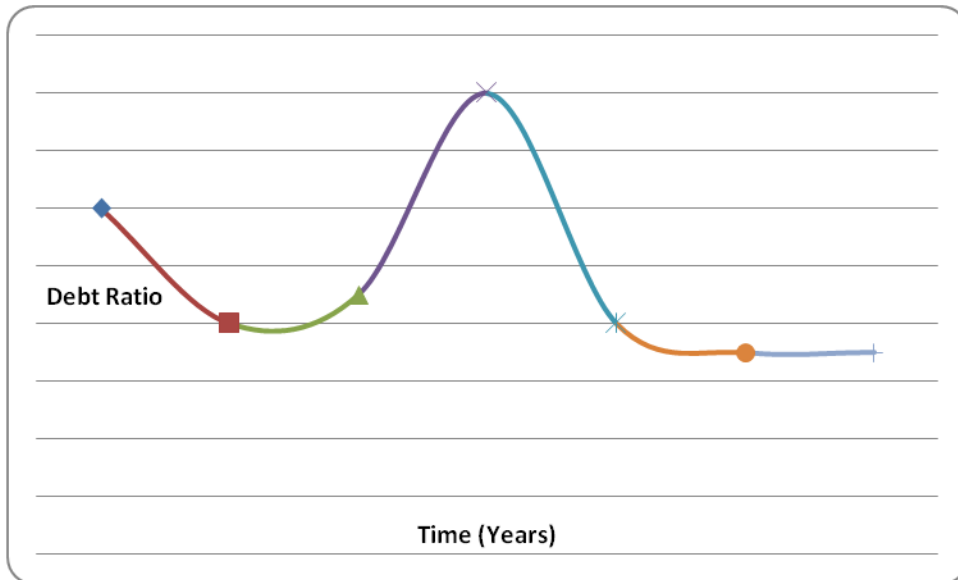
Figure 4.3: Trend analysis of debt ratio

Source: Research Data (2017)

From the analysis of the leverage which was measured by the debt ratio, the companies' debt ratio was changing over time. There was no particular trend, the companies recorded the debt ratios of 0.56, 0.62, 0.54, 0.48, 0.52, 0.57 and 0.73 for the years 2010, 2011, 2012, 2013, 2014, 2015 and 2016 respectively. The highest debt ratio being 0.73 and the lowest being 0.52.

28

4.2.4 The Average Trend Analysis of the Return on Assets

The financial performance of the companies was analyzed over a period of seven years by the return on assets from 2010 to 2016 and the research finding of the study and the trend were recorded in the graph below.
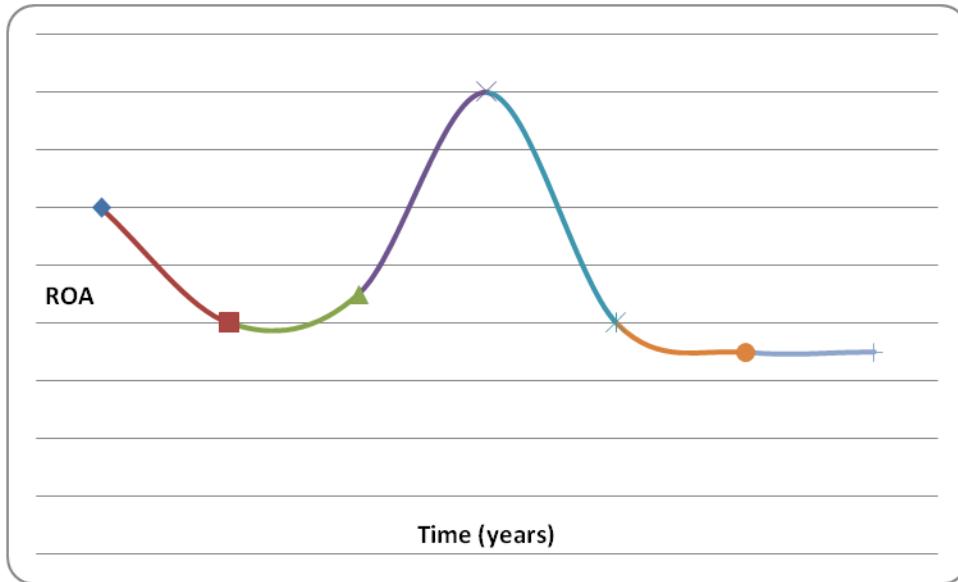
Figure 4.4: Trend Analysis of the return on assets

Source: Research Data (2017)

The ROA was varying over the period under study. The values for return on assets were 0.12,0.08, 0.09, 0.16, 0.16, 0.08, 0.07 and 0.07 for the years 2010, 2011, 2012, 2013, 2014, 2015 and 2016 respectively.

4.3 Inferential   Statistics

In the inferential statistics, the study mainly focused on the correlation analysis,

regression analysis and analysis of the variance.

4.3.1 Correlation Analysis

Table 4.1: Correlation Matrix

		CCC	ROA	Log of Assets	Debt Ratio
CCC	Pearson Correlation	1	0.126	-0.093	0.028
	Sig. (2 tailed)		0.203	0.351	0.776
	N		103	103	103
ROA	Pearson Correlation	-0.126	1	-0.161	0.331
	Sig. (2 tailed)	0.203		0.103	0.001
	N	103	103	103	103
Log of Assets	Pearson Correlation	-0.093	0.161	1	0.183
	Sig. (2 tailed)	0.351	0.103		0.064
	N	103	103	103	103
Debt Ratio	Pearson Correlation	0.028	0.331	-0183	1

	Sig. (2 tailed)	0.776	0.001	0.064	
	N	103	103	103	103

Pearson moment correlation was conducted on the variables under the study in order to establish the degree of relationships. From the research findings, the relationship between CCC and ROA was weak, the correlation coefficient was 0.126 and the relationship is statistically insignificant since the P value of 0.203 was greater than 0.05.

It is evident from the analysis that weak negative relationship exist between the company size and the financial performance since the correlation coefficient is -0.161 but the relationship is statistically insignificant since the significant value of 0.103 is greater than 0.05 level of significance. There exists a weak positive relationship between leverage of the companies as measured by the debt ratio and the financial performance since the correlation coefficient was 0.331 and the significant value was 0.001 which is less than the critical p-value which implies that the relationship is significant. The findings of the study are consistent with that of Mboroto (2013) who concluded that a weak positive relationship exists between leverage and the financial performance of the companies listed at the Nairobi Securities Exchange.

31

4.4 Regression Analysis

Table 4.2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	0.476	0.226	0.206	0.12756

The study employed a multiple regression model in the analysis by the help of the SPSS. From the findings, the correlation coefficient was 0.476 which further confirms a weak positive relationship between leverage and financial performance, adjusted R square is the coefficient of multiple determinations which is the variance percentage in the dependent variable as explained by the Independent variable.

From the results of the study, the value of adjusted R^2 was 0.206. This implies that 20.6% of the factors determining the financial performance are explained by the three independent variables under this study namely cash conversion cycle leverage and company size.

Table 4.3: Summary of One Way

The main purpose of the ANOVA was to assess whether the model was fit for analysis or not. The findings of the results were tabulated as shown below.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.265	3	0.088	5.43	0.002
	Residual	1.611	99	0.016		
	Total	1.876	102			

The significant of the model was tested by the ANOVA. From the study findings, the F statistics value of 5.43 was greater than the critical value and the P value was 0.002 which is lower 0.05 which implies that the independent variables are able to predict the dependent variable.

Table 4.4: Regression Coefficient

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	0.248	0.177		1.397	0.166
	CCC	0.013	0.002	-0.146	-1.564	0.121
	Log of Assets	-0.022	0.017	-0.117	-1.235	0.22

33

Debt ratio	0.118	0.036	0.314	3.311	0.001

The findings from the table above shows that the cash conversion cycle had a positive relationship with the financial performance and the effect was insignificant (B=0, P=0.21). The findings also proved that the company size as measured by the logarithm of the assets had a negative effect with the financial performance (B=-0.22,P=0.22) and the effect was insignificant. The study was also able to establish that leverage had a positive effect on the financial performance and the effect was significant (B=0.118, P=0.001).

4.5 Discussion of the Findings

The objective of this study was to establish the effect of cash management on the financial performance of companies listed at the Nairobi Securities Exchange. The cash conversion cycle, company size and leverage measured the cash management while return on assets measured the financial performance. The research examined the impact of the cash conversion cycle on the financial performance of listed companies at NSE.

The cash conversion cycle was measured by the receivables period add inventory period and subtract the payables period. From the findings of this study, it established that the cash conversion cycle had a positive effect on the financial performance and the relationship was insignificant at 5% level of significance (B=0.013, P =0.121).

34

The company size as measured by the logarithm of the total assets was found to have a negative relationship with the financial performance of the companies listed at the Nairobi Securities Exchange and the effect was insignificant (B=0.022, P=0.22). This implies that the size of the company has no effect on the financial performance. From the research findings, leverage had a positive effect on the financial performance and its effect was significant (B=0.118, P=0.001). This implies that a unit increase in leverage will lead to a 0.118 increase in financial performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1   Introduction

This chapter presents the summary of the findings, conclusion of the study, recommendations for policy and practice, limitations of the study and areas for further research.

5.2   Summary

The aim of the study was to establish the effect of cash management on the financial performance of the companies listed at the Nairobi Securities Exchange. Cash management was measured by the three variables which included cash conversion cycle, company size and leverage and return on assets measured the financial performance. The study employed the secondary data which was obtained from the financial statements of the companies. Data analysis involved descriptive data analysis, correlation analysis and the regression analysis.

The descriptive analysis was aimed at establishing the trend performance of the cash conversion cycle, company size, leverage and the financial performance. From the research findings, on average the cash conversion cycle posted mixed results with the highest being 52 days and lowest cash conversion cycle was – 21 days.

The company was measured by the logarithm of the assets and from the study findings, the size of the company was minimal in the year 2010 and highest in 2014. Generally there was an increase in the size of the company as the number of years increased. Leverage as measured by debt ratio posted mixed results across the period under study ranging from 0.48 to 0.73.

The study also employed regression analysis. From the regression analysis results, the regression model accounted for 20.5% of the variance in performance. This is evident from the adjusted R^2 value of 0.206 and the F-Statistic was 5.43 and this was significant at 5% significance level this implies that the model employed was fit. From the findings of the study, the effects of cash conversion cycle and company size were found to be insignificant at 5% level of significance. However the effect of leverage was found to be statistically significant at 5% level of significance.

5.3 Conclusion

The study aimed at establishing the effect of cash management on the financial performance of companies listed at the Nairobi Securities Exchange. From the study findings, the cash conversion cycle had a positive but insignificant effect on the financial performance. This implies that cash conversion cycle has no any influence on the

37

financial performance. From the findings of the study it was also established that the size of the company had a negative and insignificant effect on the financial performance. It implies that the size of the company has no any influence on the financial performance. Finally from the findings of the study it was concluded that leverage had a positive and significant influence on the financial performance. This implies that leverage has an influence. The findings are consistent with the study by Mboroto (2013) who concluded that leverage had a positive and significance influence on the financial performance of the companies listed at the Nairobi Securities Exchange.   .

5.4   Recommendations

Following the outcome of the study, the study proposes that the companies listed at the Nairobi Securities Exchange to increase their receivable period, inventory period and payable periods. This will increase the cash conversion cycle which will in turn improve the financial performance of the companies listed at the Nairobi Securities Exchange.

The study recommends that the companies listed at the Nairobi securities exchange to increase the proportion of debt in their capital structure since high leverage will improve the financial performance and this is evident from the research findings that leverage had a positive and significant relationship with the financial performance.

38

5.5 Limitations of the Study

One major challenge encountered during this study was collection of data. Considering the study was done across all the segments, it required voluminous data. The companies under the study were 15 that required data to be collected for each company.

Time Constraint, the study involved data analysis for the different variables which included cash conversion cycle, company size, leverage and return on assets. Considering the sample size was large, getting the values for inventories, total assets, sales, cost of sales, total debts and net income for a period of seven years for 15 companies was time consuming.

5.6 Areas for Further Research

This study employed only the secondary data in the analysis. Another study should be undertaken to incorporate both secondary data and primary data since primary data is able to bring out some aspects which are not dealt by the secondary data. It could be the change in financial performance is not brought about by cash management alone.

In this study, all the segments at the Nairobi Securities Exchange were represented since two companies were taken from each segment. A similar study should be conducted considering each segment as a separate entity.

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APPENDICES

APPENDIX 1: LIST OF COMPANIES LISTED   AT THE NAIROBI

SECURITIES EXCHANGE

1.Athi River Cement Ltd
2.B.O.C Kenya
3.Car and General Ltd
4.East African Cables
5.Express Kenya
6.Housing Finance
7.I & M Holdings
8.Liberty Kenya Holdings
9.Kenya Power

43

10.Kakuzi Limited
11.Umeme Limited
12.Sasini Limited
13.Sameer Africa
14.Safaricom Limited
15.TPS Eastern Africa

APPENDIX II: DATA COLLECTION TEMPLATE

The companies cash conversion cycle

Company / Year	2010	2011	2012	2013	2014	2015	2016
Athi River Cement Ltd	29.62	50.83	95.68	76.11	103.85	74.88	66.25
B.O.C Kenya	-116.68	120.46	1.35	14.68	37.06	-139.66	-159.65
Car and General Ltd	75.77	121.28	123.33	113.89	124.55	98.09	133.63
East African Cables	-104.38	106.96	120.19	192.19	176.38	114.03	-28.92

44

Express Kenya	329.36	3.43	-30.61	-34.42	-7.29	15.72	309.31
Housing Finance	266.96	-19.43	23.61	15.77	9.62	30.4	44.04
I & M Holdings	35.57	4.38	28.82	-2.81	-95.04	22.26	91.1
Liberty Kenya Holdings	31.79	-77.78	52.13	93.15	110.49	141.45	136.24
Kenya Power	-0.51	-77.98	35.65	29.45	51.59	47.87	-32.14
Kakuzi Limited	-44.84	-44.59	-87.45	-28.16	-27.15	-83.97	50.67
Umeme Limited	-69.74	-65.77	-64.72	28.35	135.53	-63.75	-48.69
Sasini Limited	-69.33	-62.71	-14.01	-4.24	4.36	-8.28	-39.79
Sameer Africa	-190.96	166.31	215.16	197.43	142.24	213.56	257.23
Safaricom Limited	-179	503.65	45.17	-174.15	-166.72	-183.18	-188.31
TPS Eastern Africa	-20.62	49.68	15.93	51.22	-71.91	-593.9	-90.81

Company Size (Log Assets)

Company / Year	2010	2011	2012	2013	2014	2015	2016
Athi River Cement Ltd	10.32	10.31	10.43	10.47	10.56	10.72	10.71
B.O.C Kenya	9.01	9.15	9.58	9.42	9.32	9.37	9.36
Car and General Ltd	9.58	9.75	9.75	9.84	9.91	9.95	9.98
East African Cables	9.61	9.7	9.8	9.83	9.89	9.87	9.91
Express Kenya	8.39	8.88	8.53	9.84	8.6	8.46	8.58
Housing Finance	10.22	10.43	10.57	8.76	10.73	10.78	10.86
I & M Holdings	10.06	9.67	9.63	10.26	11.19	10.33	9.54
Liberty Kenya Holdings	9.42	9.54	9.51	9.74	9.57	9.62	9.71
Kenya Power	10.91	11.58	11.13	9.58	11.34	11.44	11.47
Kakuzi Limited	9.45	9.36	9.49	11.25	9.49	9.45	8.77
Umeme Limited	8.71	8.74	9.45	9.55	9.42	9.34	9.25
Sasini Limited	9.25	9.34	9.56	9.45	9.93	9.58	9.49
Sameer Africa	9.53	11.06	11.0	10.0	9.51	9.44	9.51

			8				
Safaricom Limited	11.01	10.11	9.72	11.11	11.13	11.20	11.20
TPS Eastern Africa	20.07	9.4	9.61	9.72	10.08	10.13	9.70

Leverage of the companies listed at the Nairobi Securities Exchange

Company / Year	2010	2011	2012	2013	2014	2015	2016
Athi River Cement Ltd	0.38	0.47	0.53	0.72	0.74	0.68	0.45
B.O.C Kenya	0.57	0.31	0.19	0.51	0.46	0.36	0.24
Car and General Ltd	0.6	0.65	0.62	0.64	0.65	0.96	0.67
East African Cables	0.5	0.54	0.53	0.55	0.61	0.58	0.71
Express Kenya	0.45	0.47	1.14	0.39	0.63	0.86	0.98
Housing Finance	0.85	0.411	0.19	0.39	0.63	0.86	0.98
I & M Holdings	0.63	0.79	0.55	0.61	0.85	0.28	0.39
Liberty Kenya Holdings	0.68	0.62	0.58	0.65	0.29	0.59	0.62

Kenya Power	0.64	0.89	0.68	0.73	0.75	0.77	0.78
Kakuzi Limited	0.64	0.77	0.43	0.39	0.53	0.41	0.54
Umeme Limited	0.36	0.81	0.57	0.45	0.31	0.58	0.90
Sasini Limited	0.83	0.54	0.62	0.311	0.15	0.27	0.44
Sameer Africa	0.73	0.41	0.27	0.19	0.28	0.53	0.42
Safaricom Limited	0.310.42	0.41	0.38	0.32	0.57	0.27	0.35
TPS Serena Eastern Africa	0.4	0.38	0.78	0.47	0.54	0.45	0.4

Financial Performance of the Companies Listed at the Nairobi Securities Exchange as Measured by Return on Assets

Company / Year	2010	2011	2012	2013	2014	2015	2016
Athi River Cement Ltd	0.05	0.05	0.05	0.04	0.02	0.03	0.02
B.O.C Kenya	0.004	0.08	0.03	0.25	0.27	0.06	-0.02
Car and General Ltd	0.07	0.01	0.04	0.05	0.03	0.03	0.03
East African Cables	0.14	0.06	0.14	0.06	0.04	0.03	0.01
Express Kenya	0.177	-0.3	0.13	0.16	0.21	-0.0	-0.01

48

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Housing Finance	0.06	0.08	0.03	0.27	0.01	0.13	0.06
I & M Holdings	0.17	0.24	0.22	0.88	0.04	0.02	0.01
Liberty Kenya Holdings	0.19	0.20	-0.0 3	0.11	0.11	0.1	0.09
Kenya Power	0.04	0.02	0.03	0.02	0.03	0.15	0.13
Kakuzi Limited	0.14	0.13	0.28	0.1	0.16	0.03	0.03
Umeme Limited	-0.01	0.04	0.07	0.08	0.07	0.23	0.58
Sasini Limited	0.50	0.36	0.04	0.01	0.01	0.05	0.06
Sameer Africa	0.04	0.05	0.11	0.13	0.03	0.02	0.11
Safaricom Limited	0.16	0.12	0.10	0.1	0.17	-0.0 2	-0.2
TPS Eastern Africa	0.04	0.05	0.05	0.06	0.05	0.2	0.02