

**WORKING CAPITAL MANAGEMENT AND FINANCIAL PERFORMANCE OF  
ENERGY AND PETROLEUM FIRMS LISTED AT THE NAIROBI SECURITIES  
EXCHANGE, KENYA**

**BY**

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UNIVERSITY**

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**DECLARATION**

I hereby declare that this research project is my original work and has not been submitted to any institution or University for any award.

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## **DEDICATION**

This study is devoted to my cherished wife Patricia Aburu and daughter Annabelle Matinde for encouraging and supporting me during the study period. Your efforts are appreciated.

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## OPERATIONAL DEFINITION OF TERMS

<b>Cash Management</b>	In this research management of cash is defined as the practice through which cash flows are collected and managed.
<b>Creditors Management</b>	In this study creditors management involves the trade-off between profitability and liquidity in regards to what levels of credits that are accepted.
<b>Debtors Management</b>	Debtors management in this study is seen as all about strategies and processes that are necessary in relation design and observing policies governing how firms are supposed to give credit to customers.
<b>Financial Performance</b>	In this study this is defined as the achievement of goals in monetary that firms seek.
<b>Inventory Management</b>	Inventory management is defined in this study as procedure through which a firm orders, stores, uses and sells its stocks.
<b>Return on Assets</b>	Referred in this study as the amount of monetary gains that an organization generates from assets
<b>Return on Equity</b>	In this study earning on equity is defined as a division on stockholders' equity and net incomes indicating how the firm is performing financially.
<b>Security Exchange</b>	In this study defined as a market that afford traders, shareholders and others investors a platform to buy and sell financial instruments such as bonds, stock among others
<b>Working Capital</b>	In this study this is defined as part of capital that firms hold in form of receivables, cash, marketable securities and inventories.
<b>Working Capital Management</b>	In this study WCM is referred to what remains from current assets and liabilities. WCM as a tool in business help organizations to be able to manage their current assets so as to maintain cash flow sufficient in meeting short term obligations and objectives.

## **LIST OF ABBREVIATION**

<b>CCP</b>	Cash Conversion Period
<b>CMA</b>	Capital Markets Authority
<b>CPP</b>	Creditors Payment Period
<b>DCP</b>	Debtors' Collection Period
<b>ICP</b>	Inventory Conversion Period
<b>NSE</b>	Nairobi Securities Exchange
<b>ROE</b>	Return on Equity
<b>SME's</b>	Small and Medium Enterprises
<b>WCM</b>	Working Capital Management

## ABSTRACT

Due to insufficient working capital and poor WCM, many companies in Kenya experience issues connected to illiquidity, which has a detrimental effect on financial performance. Matters are made worse, financial performance of publicly traded companies in the energy and oil sectors has changed over time. Some years performance improved, some years worsened. In general, a number of publicly traded businesses in the energy and petroleum industries failed to reach their financial goals and eventually issued earnings warnings, as did KPLC. The overall objective was to examine the impact of working capital management on the financial performance of energy and oil institutions registered on the Nairobi Securities Exchange. Specifically, this survey pursued the impact of accounts receivable, inventory, cash and accounts payable management on the financial performance of energy and oil institutions registered on the Nairobi Securities Exchange. A null hypothesis was tested. Four theories formed the theoretical orientation including Liquidity Preference Philosophy, Cash Conversation Cycle Philosophy, Transaction Cost Model, and Cost Tradeoff Theory. A descriptive study method was used using 367 employees in the energy and oil industries as the target population. In this study, 191 employees were chosen at random to participate in the study using stratified sampling. The study was conducted between 2016 and 2020. The primary information was gathered via a controlled questionnaire. Data abstraction methods were used to gather financial performance information relating to return on equity. For the goal of analyzing the data gathered, descriptive analysis and multiple linear regression were useful. The results indicate that the null hypothesis was rejected and the alternative hypothesis was accepted. The results also demonstrate that the effects of accounts receivable, inventory, cash, and payables on the financial performance of NSE-registered oil and energy enterprises were deemed to be significant. The study comes to the conclusion that a sizable amount of an organization's or company's working capital is made up of debtors. In order to maximize their return on investment when revenue outpaces costs, these organizations and businesses use liabilities in their financial structures to create financial leverage. A liability can be amortized as an expense. Inventory management is not only tedious, it is a difficult task. Inventory of all kinds represents a significant part of a company's capital, so the success or failure of a business depends heavily on how inventory management evolves. The management of an organization is responsible for retaining and managing cash when making investment decisions that affect the company's operations and improve its financial performance. A precondition for a company's financial solidity and continued success is having in place a credit management system that is sound. To improve financial performance, the report advises businesses to develop efficient accounts receivable management systems. Without effective inventory management, businesses run the risk of overstocking their items, which not only results in negative cash flow but also runs the risk of keeping outmoded dead stock on hand. As the process of collecting money, keeping track of money, and using projects to invest in is a crucial component determining financial performance, an organization should assure the financial solvency and stability of an organization. This requires having a tight cash management strategy. Appropriate credit management solutions that enhance financial performance to lower capital that is debt-bound and lower the likelihood of running into bad debts.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

In order for a company to consistently achieve profitability, proper working capital management (WCM) is a requirement. Making choices on short-term financing aids in ensuring a company has enough cash flow to cover operating costs and immediate needs. However, due to the recent economic and financial crisis, it is now more crucial than ever for businesses to maintain a robust cash flow position (World Bank, 2022). Wherever there are concerns about an economic downturn and difficulties obtaining financing, the risks involved for businesses like illiquidity almost always increase. Frankfurt Business Media (2019) claims that when organizations lose liquidity, they are unable to accurately analyze their cash-related needs. In this situation, working capital performance is useful since it gives businesses the crucial knowledge they need to understand the state of their financial situation.

This fact is supported by Financial Executives International Canada (2020), which contends that the working capital on the balance sheet is the most important indicator when asking lenders and investors to provide a company a clean bill of health regarding its financial fitness. Both short-term and long-term financing options are available for company initiatives. A company may need short-term financing to cover expenses like paying employees, buying raw materials, and other everyday expenses, while a long-term finance requirement concentrates on the needs of the company that call for capital expenditures. As a result, working capital management is a short-term type of financing for businesses that is closely related to the profitability and liquidity of their trades. This being the case, liquidity firms needs to have an effective WCM which improves operations of a business concern. Being an imperative part of management of finances and as an overall management of a business concern studying working capital is justified (Bui, 2017).

Businesses in emerging economies like those in Africa need to manage their working capital effectively if they want to stay competitive. Because they are tiny and pursuing

expansion, businesses in emerging economies have difficulty accessing the capital markets and are unable to receive long-term funding from institutions. These businesses also operate in nations with weak corporate governance, high interest rates, unequal income distribution, underdeveloped formal financial markets, and higher levels of political unrest. Companies in emerging economies must rely on working capital as their internal source of cash for them to function profitably (Widyastuti, Oetomo & Riduwan, 2017). As a traditional concept emphasized in most standard textbooks of corporate finance, WCM is a central aspect organizations need so as to achieve financial success. This highlights the importance of working capital management as the greatest vital part of financing decisions of a firm when seeking a motivation towards performance (Hau, 2017). For a firm seeking to grow and be sustainable it must face the impacts that come with working capital components on risks and financial success. Managing efficiently the variance between liabilities and assets that are current therefore is not only important but desirable for its long term survival (Yahaya, 2016).

The financial industry and stock market play a significant role in the economic growth of developing nations like Kenya. The financial sector's penetration and the existence of a healthy capital market, which not only boosts investment growth but also economic efficiency, both contribute to these countries' economic growth (Wangige, 2016). A strong economy depends on the performance of the companies that are listed there, as a weak stock market has a detrimental impact on the economy as a whole. The ability of companies to maintain effective operations more so in the petroleum and energy sector in Kenya is dependent on how much investment is put into working capital. The best level to be is achieved when firms are able to have a good trade-off between financial success and liquidity. Investing excessively in working capital can lead to firms' inability to honor their short term obligations as a result of reduced profitability. Banos-Caballero, Garcia-Tureul and Martinez-Solano (2019) argue that a firm's growth and survival is influenced by two significant facets of WCM thus liquidity as well as profitability which must be maintained as a level that is satisfactory. Zeidan and Shapir (2017) have put more emphasis on why it is important for firms to maintain balance on converting assets or securities into cash and financial gains in the creation of shareholders value. In their study, they further

highlight that whenever there is a mismatch between asset and liability there is a likelihood of increased firms' profitability risking insolvency or emphasizing on liquidity while a negative influence on profitability.

In making of decisions on management of finances WCM is an important fraction since managing working capital has implications on liquidity and profitability. For firms to operate optimally there needs to be a control on the balance off profits and liquidity which is accurate necessitating the importance of a familiarity of liquidity and profitability management in working capital. A company can generate more worth through an optimal working capital management. For company to pay with ease obligations arising from business activities to ensure smoothly running of operations it is crucial to manage working capital effectively so as to maintain its liquidity (Mwaura, 2017).

### **1.1.1 Working Capital Management**

Working capital is defined as the short-term or current assets of a firm. It is nevertheless crucial to manage a company's working capital to make sure it has the resources necessary to carry out and keep up with daily chores and activities. In a word, this is a list of cash receipts and disbursements related to business activity (Afrifa & Tingbani, 2018). Since financial inflows and outflows are unpredictable somewhat and vary over periods of time thus firms need to uphold certain levels of working capital. The an foreseen variances arising from trade credit terms that are inadequate, presence of suboptimal loan decisions, non-bridged interfaces causing excessive stocks, process that are disconnected in the supply chains require that companies have in place working capital that is higher than necessary. Whereas some of these challenges originate from the financial area, it important to note that in the operating area, connecting reducing inventory and stock and supply chain activities is necessary. To be on the safe side in relation to meeting short-term obligations companies always try to tie less capital to stocks that are non-productive and accounts receivables collection period is shortened and payments made in lieu to what's owe are stretched to conceivable levels (Mohamad, 2018).

Working capital management, which entails making judgments on matters pertaining to current asset composition, quantities involved, and methods of financing the said assets, is

one of the most important areas to consider when comparing profitability and liquidity (Altaf & Farooq, 2019). All things being equal, it is crucial for businesses to have a higher percentage of liquid assets so they may avoid the danger of not having enough cash on hand to pay for immediate obligations. The performance of any firm is achieved through the combination of different elements of the difference between assets and liabilities that are current like inventory management, monies, account to be received and marketable securities. According to Lyngstadaas and Berg (2016) to create shareholders value it necessary and important to have an efficient working capital management. Amr (2019) on the other hand highlighted the most critical objectives of WCM thus; ease conversion of assets into cash and financial gain. There is a likelihood of firms failing and facing bankruptcy if trade-off between liquidity and profitability is not taken into account since working capital management important cannot be written off (Boopathi & Leeson, 2016). Therefore, working capital management efficiency is significant and undisputable (Altawalbeh, 2020).

Maximization of firm value in the long run is dependent on it surviving in the short run. The requisite for a firm surviving in the short run is having a sound working capital management which makes it possible for the firm to meet its working capital needs promptly (Hassan, Hellen & Willy, 2017). To meet its short term obligations and ensure that operations are running smoothly it is a crucial requirement to have a comprehensive working capital financing that can maintain its daily operation liquidity of needs (Kasozi, 2017). The main task in all this is for managers to ensure that business operations are running efficiently and in a manner that brings financial gain. Since there is a likelihood of disparity between assets and liabilities that are current for the duration it is the prerogative of the manager in charge to manage this properly otherwise the firms' profitability and growth will be affected. Following this is, firms will get financially distressed leading to bankruptcy if not correctly handled.

Companies aspiring to be competitive through the creation of value need to have an overall corporate strategy which fundamentally deals with ensuring that the firm has an optimal balance in each and every component of its working capital management of; payables, receivables, cash and inventory (Madugba & Ogbonnaya, 2016). As companies seek to



improve on their overall business success, risk minimizations and effectively preparing for any eventuality, it has become more and more important for organization in practice and among executives to identify the best level of securities and resources easily converted into money and basic drivers of assets and securities to be held (Kumaraswamy, 2016).

A research done by Jagongo and Wanyonyi (2016) found out that firms in the petroleum and energy sector are faced by challenges of global oil market volatility; huge requirement of volumes, unpredictable price changes in addition to market for currency volatility experiences requires that they have a high intensity of working capital. WCM comes in handy if these firms are to bring returns to stockholders which are attractive. To deter these firms from charging prices exorbitantly in order to reap huge profits from market volatility the government laid down regulatory measures for provides that cushion gas and oil users (Ondari, 2010). Owing to the fact that by holding huge stocks, price volatility can lead to high risks through losses from decreases in prices and that huge profits as a result of rising in prices, this volatile nature of petroleum and energy products therefore calls for WCM in the form of proper inventory management in terms of holding stock without which companies might find themselves in financial meltdowns.

Accounts payable is defined is the amounts of monies that have not been paid despite the fact that they have been processed in relation to goods and/or services supplied. These includes expenses that have been accrued as well as trade credits that offer the necessary monies which are a requirement for carrying out everyday business operations (Naeem et al., 2014). While organizations have a preference for selling their products or services for cash they are forced to do it on credit because of among other the competitive nature of business and other forces of firms being ready to offer credit facilities. Accounts payable unlike the credit offered by financial organizations dependents solely on reputation and trust rather than formal collateral.

Profits of an organization are directly affected by accounts receivable one of the components of cash flow. In order to have an effective financial performance organizations are required to have in place a cash flow management strategy focusing on synchronizing outflows and inflows of monies (Gill, Bigger & Atnur 2011). Among the firm assets considered to be among the large investments receivables, are comparable to capital

budgeting projects that are evaluated in regards to their NPV. According to Ahmet and Emin (2012), accounts to be received encourage more sales since customers are able to know the quality of the products before any payments is made whereas debtors revolves around monies that offer opportunity cost. As a result of accounts receivable features which include futurity, risk elements and economic value explicates the need and basis for having in place a system of management of receivables that is efficient.

Management of cash must be geared to optimization of cash that is available to firms so as to maximize amount of monies held and levels of earning by organizations. While these monies could have been more productive elsewhere they incur opportunity cost. There is a challenge of being unable to service obligations when they fall due if firms embark on carrying out their operations with very little balances of cash which also increases financial risks to firms. To be considered efficient cash management practices formulated an adopted by organizations need to involve planning and monitoring of cash flow availability and the determined optimal cash to be held (Costa, 2014).

Inventory management, according to Ezechukwu and Amahalu (2017), is the use of various techniques to increase the levels of all stock types, including finished goods, goods currently being manufactured, and raw materials. Organizations can implement a variety of measures to limit or stop the company from suffering excessive departmental losses as a means of controlling inventory. Some of the procedures that can be employed include doing a monthly inventory to make it easier to keep track of the stocks that are available, used, and lost, and conducting routine site inspections to prevent worker material theft. Businesses can prevent inventory losses during material acquisitions and storage by imposing rigorous regulations on store managers and procurement officers.

In summary, the variables of WCM include, debtors, inventory, cash and creditors management. An effective debtors management strategy must explicitly come up with policies that direct how the firms give out credit to its customers though a well thought out process which is designed to monitor aspects of credit. The reason behind a debtors management strategy was to minimize issues of bad debts arising from non-payment or late payment of commitments on the total purchases made on credit. This variable was

further measured using debtors turnover and collection effectiveness index. Inventory management is referred to as an organized approach that relates to raw materials and finished goods sourcing, selling and storing and was measured in this study by indicators like inventory turnover and customer retention and loyalty levels (García-Alcaraz,et al., 2018).

On the other hand, cash management variable defined as the procedure relating to a company`s collection and management of cash in-and-out flows from operations, investments and activities finances was measured by cash conversion cycle and operating cash flow. Creditors management which is referred to as the credit related functions such as how and when to grant credit, the terms for granting credit, ways of recovering the credit when it falls due, how to ensure compliance with general firm credit policy among others was measured indicators such as creditors turnover and right party contacts rate (Rahman, 2020).

### **1.1.2 Financial Performance**

Financial success is defined by Adesuyi, Nwekpa, and Bassey (2017) as a specific degree of a company's ability to use resources solely for the purpose of earning revenue through a financial trustworthiness where the banking system provides a stable and secure system for deposits. The authors also contend that businesses can utilize financial performance to gauge their current state of health and that they can use this data to compare themselves to other businesses in the same industry or to other businesses in general. According to Martinez-Solano and Garcia-Teruel (2016), the topic of financial performance was and is currently of tremendous interest to academics and business professionals across a wide range of industries. The financial success and survival of an organization depends on it. Additionally, the authors contend that institutions that successfully balance returns and risk in order to reduce and manage hazards are functioning well. Organizations occasionally look into the finest ways to achieve high performance with this in mind. Numerous research and ideas have been developed as a result by firms looking to identify the variables most likely to have an impact on firm performance and how much..

Measuring an institution's financial performance is useful for understanding why it exists. Financial success is attained within the allotted time span using the established goals and objectives as benchmarks. There are two key indicators of an organization's performance. These actions may be financial or non-financial in character (Maurizio La, 2019). Quantitative language is used to communicate monetary measurements of organizational performance. These metrics relate to returns on resources, income from investments, profits from business operations, and asset liquidation. The majority of businesses exist to profit from their core business operations (Ubochioma, 2016). Non-monetary metrics, on the other hand, are standards that are qualitative in character. You can examine an organization's financial performance in terms of its workforce and working environment. Organizations are expected to create a sustainability report that considers both the environmental and human aspects, according to Pangastuti and Yang (2016). An organization considers, among other things, customer happiness, employee motivation, and loyalty when measuring the people aspects as a non-financial component. The environmental factors cover how well businesses operate in their environment.

Financial performance in Energy and Petroleum sector is significantly influenced by decisions made by a firm on its current assets and liabilities since this is founded on liabilities and assets that are within a short period of time. On a daily basis an organization encounters current asset instruments like accounts receivables, inventories and cash. How effective or not a company manages its inventories directly impacts on the total sales and subsequently revenues from sales. A company can witness loss of sales as a result of stock outs and maintaining of low inventory levels. On the other hand, a company may suffer from loss of investment in opportunities or costs that are high from financing activities in the short term resulting from holding high levels of stocks which tie capital (Nason & Patel, 2016). Since the key objective why stockholders make investments in business activities is to grow their wealth, this being the case, it is therefore important that performance is measured to show how wealthier or poorer stockholders have become over time from the investment opportunities. In this study financial performance was measured by the earnings from equity from the companies` annual return in this case the a division of net incomes and overall value of stockholders` equity and earnings from assets which was the portion of profits that an organization received from its use of assets.

### **1.1.3 Energy and Petroleum Firms Listed at Nairobi Securities Exchange**

Nairobi Securities Exchange (NSE) is market where trading of shares is done publicly through the issuance of securities by firms that are quoted as well as the Kenyan government usually for prices that are agreeable. The center point for the Kenyan capital market is the Nairobi stock 20 exchange where securities are listed and traded. Upon getting permission from London Stock Exchange, NSE commenced its operations in the year 1954 as a foreign stock exchange. When it started its operations it was basically restricted to European community members residing in Kenya and was the coming together of securities brokers` voluntary recorded and trading. Asians and Africans were given permission to deal in stocks in 1963 after Kenya gained independence but the native Kenyans were not convinced of the benefits of the exchange. Over the last few years the NSE has become more and more popular investment among Kenyans due to its high returns. Currently, NSE has not only become an integral part how the economy works but has a significant influence whenever there is fluctuations corporate organizations and individuals lives are influenced. According to the NSE (2021) report NSE has 63 firms listed with it who operate on two indexes on computed on a daily basis. These are the NSE-20 securities catalogue and the NSE entirely stock directory. The NSE-20 stock catalogue is about total geometrical mean that is weighted in relation to any twenty most active as well as large securities representing all industries.

The Petroleum and Energy industry players at NSE are justified in the current research owing to the fact that this is among the most crucial players of any operations of a country. This industry not only affects individual living standards but affects the national security and the economy of a country. To measure how well a country is doing, how it is developing and how it is growing economically the intensity and levels of energy use is a good indicator. Energy and Petroleum industry plays a key role by contributing to so much to the economy. Its contributions are in the form of expansion and maintenance of infrastructure, fiscal revenues to the government through levies, duties and taxes on products in the sector that providers` source of their operations. The main challenges in the petroleum and energy industry that affect economic activities are the supply disruptions

and shortages of products. In the Kenya the total energy consumption is dependent on three main sources namely electricity and petroleum (9%), energy (68%) and biomass (21%). In terms of fossil fuels the country is dominated overwhelmingly by petroleum products which account for about 25% of the overall imports (National Energy Policy, 2018).

The firms listed at NSE in the energy and petroleum industry are four which include Total Kenya Ltd, KenGen Ltd, Kenya Power & Lighting Co Ltd and Umeme Ltd which will be the focus of this study because they are key actors in the industry and have necessary information required in this study. In Kenya the main source of energy that is used for commercial purposes is petroleum fuel and the country is a net importer of the same. For firms in the energy and petroleum to achieve growth in profitability it necessary to identify variables that can influence their profits major among them being decisions made on working capital management. Being unable to meet its obligations when they fall firms will be faced with disruptions on their distribution and marketing processes arising from actions by supplier blacklisting and labour strikes. Another critical challenge facing the petroleum and energy industry is the operations costs which are high occasioned by regulation, poor infrastructure, burden of government policies especially on taxation and volatility in exchange rates (Waithaka, Humphrey & Mbaka, 2021).

Total Kenya Limited is currently the 27th most valuable stock on the NSE with a market capitalization of KES 3.98 billion, which makes about 0.18% of the Nairobi Securities Exchange equity market. Its business environment faced extremely challenging circumstances in 2020 resulting from COVID19 pandemic. The firm has invested continuously in among other convenient shops like Bonjour, Auto Service Centres known as Total Quartz and Car wash shades. This is in addition to third party arrangements providing various services to their esteem clients in one stop retail channels. The financial year for Kenya Electricity Generating Company PLC (KenGen) that ended at June 30<sup>th</sup> 2021 showed 7% increase in PBT to Kshs. 14.76 billion from 13.79 billion. Diversification strategy employed by the company led to this continued growth in revenues. KenGen remained sturdy despite the challenges in their operating environment posting a stable

performance and signified sound monetary position reaffirming the firm`s commitment and promise for continual growth in business and shareholder value maximization.

Profit before taxation for Kenya Power & Lighting Co Ltd in the year ended 30th June 2019 went down to Kshs. 334 million from Ksh. 4,968 million stated in the year 2018. The main cause of this reduction was increases in costs of non-fuel power purchase of Kshs. 18,083 million from Kshs. 52,795 million raising to Ksh. 70,878 million. This was also attributed to commissioning of two 360MW capacity power plants. At the same time the firm saw its costs of finance rise by Kshs. 3,267 million resulting from increased rates of borrowing in the short term and losses from foreign exchange. The company saw an increase of 11.8 percent from its revenue more specifically from sales of electricity which grew from Kshs. 95,435 to Kshs. 112,429 million a rise of Kshs. 16,994. Tarrif review at the beginning of the year was the determining factor of the increase in revenue despite tariff harmonization during the year leading to rates being lowered for commercial clients that were small and the life line tariff which was broadened for domestic customers. Umeme Ltd began the year with a share price of 6.74 KES and has since gained 4.45% on that price valuation, ranking it 14th on the NSE in terms of year-to-date performance. Performance was due to continued investment in the company`s existing network in addition to projects to enable the firm meet its overall recovery in demand and regulatory targets (Busuulwa,, 2022).

## **1.2 Statement of the Problem**

Poor networking practices among businesses around the world cost 1000 enterprises roughly \$2 billion annually (Frankfurt Business Media, 2019). Due to the recent economic and financial crisis, it is now more crucial than ever for businesses to maintain a robust cash flow position. As a result, WCM becomes a crucial part of managing money in businesses (Nguyen et al., 2020). However, a company's liquidity situation could be harmed by an excessive trade-off between assets and liabilities in the current form, which could encumber required money in non-productive inventories and accounts receivables and delay production and cause business loss due to product shortages (Kombo & Wekesa 2017). Therefore, maintaining a favorable balance between current liabilities and assets is

essential for a business's efficient operations. If WCM policies are properly developed and put into practice, operational difficulties may be avoided.

Having an effective trade-off between assets and liabilities in the current form helps a firm escape falling into financial difficulties (Nguyen et al., 2020). In order to determine a capital structure that is suitable for a firm, financial performance factor is critical. The main interest for creditors and investors in a company is to find out whether the firm is able to generate enough cash to aid their debt when due. It is even better if the organization is in a position to meet obligations that are financial under conditions that are adverse and not only under favorable times since this is the concern of debt-holders. However, most companies are facing many challenges. According to Bui (2017), the most critical among the many challenges is working capital that is inadequate or issues of illiquidity which has affected their financial performance negatively. Worse still, the monetary success of registered organizations in the petroleum and energy sector has been fluctuating across time (Frankfurt Business Media, 2019). In some years, the performance has improved while in others it has declined. Overall, several listed firms in the petroleum and energy industry are unable to achieve their monetary targets which lead them into giving warnings relating to profit expectations (Kombo & Wekesa 2017).

There have been numerous studies on working capital management in various markets. For instance, Ismail, Abdul, and Aliyu (2020) evaluated the correlation between financial gains and WCM of listed Nigerian conglomerate enterprises. According to their research, the time it takes to collect debts and the time it takes to convert inventories are both positively correlated with business profitability. The study also found a negative correlation between corporate profitability and the cash conversion period, asset earnings, and credit payment term. This study did not directly address the variables that were discussed in this study, such as debtors management, inventory management, cash management, creditors management, and financial performance, even though it sought to determine the effects of WCM, liquidity, and corporate profit levels.

In Ghana, Langtertaa (2019), assessed WCM association with monetary gains among SMEs selected in the sector of production. The findings show that there was a relationship



which is significant among indices of profitability, liquidity, and elements of trade-off between assets and liabilities in the current form and monetary successes. The research while addressing how WCM relate with financial performance it did not capture the influence of debtors management, inventory management, cash management and creditors management and how they relate to financial performance. The current study focused on these variables.

In addition, Tingbani (2020) investigated how WCM, liquidity and monetary trustworthiness among 802 firms registered at the London Stock Exchange. The study results that were based on bivariate investigation found out that having in place a sound working capital management and liquidity firms can have financial successes. The study did not cover the variables of this study like debtors management, inventory management, cash management and creditors management and how they relate to financial performance. Despite the fact that these studies were on the how WCM relates to financial performance none was carried out in context of listed firms in energy and petroleum sector. Therefore, there was an opening in relation to inconclusive information in this area which the current study focused on. The question to be answered was: what was the connection amongst WCM and monetary performance of petroleum and energy firms at NSE.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

The primary goal was to investigate the influence of working capital management on the financial performance of NSE-registered petroleum and energy enterprises.

#### **1.3.2 Specific Objectives**

These included:

- i. To investigate the influence of debtors management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.
- ii. To evaluate the influence of inventory management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

- iii. To ascertain the influence of cash management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.
- iv. To assess the influence of creditors management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

#### **1.4 Research Hypotheses**

The hypotheses included:

**H<sub>01</sub>:** Debtors management does not significantly affect financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

**H<sub>02</sub>:** Inventory management does not significantly affect financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

**H<sub>03</sub>:** Cash management does not significantly affect financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

**H<sub>04</sub>:** Creditors management does not significantly affect financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

#### **1.5 Significance of the Study**

The focus was highlighting how significant WCM is on performance in monetary terms among petroleum and energy companies. Since corporate organizations are focused on creating stockholders value the study findings provided efficient working capital strategies to be employed by these firms to create value. Managers at the corporate level would gain understanding on the benefits of having operative WCM components that can lead to profitability. This would improve on their rating in market place in terms of securities offers and the expected returns from dividends and gains.

Through the study results firms would be on the knowhow of the effects of WCM and the steps that can be taken to have efficient WCM strategies to improve on financial performance thereby creating more wealth for stockholders. This research results could effectively guide management of companies on how well to manage their WCM to improve

on financial performance based on theories and knowledge put forth on WCM and success in financial gains among petroleum and energy industry NSE registered firms.

Future scholars focusing on WCM and financial performance would greatly benefit from the current study since it would highlight areas that require further studies based on the body of knowledge that has been reviewed. Other practitioners in finance like securities brokers, financial and security analysts would benefit from the study results on how WCM relates to financial performance and could put the findings in practice on matters to do with investments in portfolio and analysis.

### **1.6 Scope of the Study**

The scope was four petroleum and energy institutions registered with NSE comprising of Total Kenya Ltd, KenGen Ltd, Kenya Power & Lighting Co Ltd and Umeme Ltd and focused on relationship between monetary performance and WCM of these institutions. The research sought to establish how WCM relate to monetary success of the said firms (2016-2020) period.

### **1.7 Limitations of the Study**

This investigator encountered challenges like relying upon measures that are relative and using approximations in relation to the sources of data which had a negative effect on the results. In mitigating this limitation the researcher relied on secondary sources like CMA library and checking hard copy financial statements which were considered accurate and reliable. Another limitation was on respondents who were not willing to provide information which they considered objective, reliable and accurate but did not meet the study threshold. In addition, the study was negatively influenced by information collected from secondary sources like official statistics. To some extent this information was biased depending on those in power and was not conclusive to be used for a wider population. To minimize on this limitation the researcher tested data reliability and checked whether data was consistent before proceeding to data analysis.

## **1.8 Organization of the Study**

The research was on five sections. The first chapter explains study context, statement of the problem, objectives, questions, scope, the significance, research limitations and organisation of the proposed research. The second chapter is on theoretical framework, empirical literature, summary of the works reviewed, gaps in research and conceptual framework. The third chapter describes research methods of the study which comprises of procedure, population, sample designs and sample size, instruments of data collection, pilot study, information gathering process, records analysis and presentation and ethics consideration. The fourth chapter highlights the research results including; general information, data analysis by objectives and the effects of WCM variables on financial performance by the respondents. Lastly, the fifth chapter highlights the summary of the study and the conclusion. This chapter also presents the recommendations and suggestion for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section looks at works relating to reviewed topic. This section examines; theoretic examination on liquidity preference philosophy, conversion of cash cycle model, cost of transaction theory and cost trade-off theory. The past studies captures sections like; management of debtors, inventory, cash and creditors on financial performance. Equally, the chapter examines brief study findings, gaps in studies looked at and conceptual framework. The reviewed literature was gotten from academic materials that had been published, periodical articles on WCM and websites.

#### **2.2 Theoretical Review**

The orientation of models included reviews of Liquidity Preference Theory, Cycle on conversing cash Philosophy, Transaction Cost Philosophy and Cost Trade-Off Model.

##### **2.2.1 Liquidity Preference Theory**

Keynes developed this theory in 1936. The theory posits that money demanded by individuals as assets was speculated and depended on the forgone interests that might have arose from not holding bonds According to Atnafu, Balda, and Liu (2018), Keynes' liquidity preference model was about how people valued money for both transacting in immediately available enterprises and for its value when kept as wealth. People will consequently have their money as a safety net by forgoing its power to generate interest for them now. In the same way, people are more inclined to store less cash as interest rates rise in the prospect of increasing their profits. This being the case, it is therefore in the best interest of an individual to have resources to cover ones` pure purchasing power because of the uncertainty of future endeavors and the need to have money to plan expenditure and the future relating to interest rates.

Three reasons identified on the importance of liquidity from “The general model of employment, interest and money” by Keynes (1936) were the motive of transaction, motive

of precautions and speculative motive. The transaction motive which is usually dependent on spending habits of individuals, time gap between when one receives income and spending and the income size is known as the demand for money to be used by institutions of finance to run their daily activities without a hitch in the completion of economic transactions. When banking institutions seek to keep money in liquid form or purposes of unforeseen accidents, contingencies and emergencies is called the precautionary motive while when institutions of finance want to keep money while focusing on taking advantage in the changing prices of securities and bonds is known as speculative motive. According to the theory of liquidity banks instead of inertly seeking to accommodate credit demands follow active balance sheet procedures. The model is applicable to this research because it enhanced organizations needs to have an effective working capital management to help them have in place sufficient finances to meet obligations and goals that are short term in nature using current assets and more especially on components of debtors and creditors management.

### **2.2.2 Cash Conversion Cycle Theory**

Cash conversation series model developed by Gitman in 1974 as part of the items of the operating cycle calculated through adding inventories and receivables period subtracting payables. According to the cash conversation cycle the interaction between the flow of cash and working capital components is a good predictor of what quantity cash is needed for ay levels of sales (Zalaghi & Godini, 2019). The cash conversation cycle theory focuses on duration required in acquiring inventories and required inputs as well as money received from products sale and characterizes days of operation to finance needs (Mab & Makoni, 2019).

Whenever the cash conversation cycle is shorter the company needs fewer resources for operations while if cycle is longer the working capital investments are higher. The cash conversation cycle model characterizes that cash conversation cycle is broadly measures working capital for firms since it shows period interval between buying inventory by organizations and collections of finances from selling of finished products (Altaf & Shah, 2017). This theory states that the daily running of an organization`s liabilities and assets in the short run has a central part in company failure or successes assuming the

organizations growth in the long run both in in the main businesses and prospects which are healthy financially cannot remain solvent if there is no good liquidity management. The model was significant for the research since it helped in explaining how cash and inventory management policy influence monetary performance.

### **2.2.3 Transaction Cost Theory**

In 1981 Ferris postulated a model known as the transaction cost model. Ferris is the proponent of the transaction costs theory of 1981. According to this theory having an effective payables management system costs involved in carrying out transactions of paying bills is lowered. The model asserts that it is prudent for companies to put together their obligations and pay once a month or in three months period instead of having to pay whenever they request for delivery. This is beneficial for companies since they are able to separate their delivery schedule from payment cycle (Mankiw, 2017). Further to this, it will be expected of the firms to build through credits huge inventories which will enable them carry out business product cycle smoothly. This is despite the fact that, it attracts warehousing costs of keeping inventory and financing costs. To minimize costs and improve on profits its required of managers to come up with strategies to achieve these goals.

Transaction cost model aims at reducing operations costs by cutting costs in the nature of labour costs and expenses required for the smooth running of institutions. Making the largest share of organizations lending portfolio in the financial markets transaction costs like lending costs and deposits need to be looked at keenly by those in charge. In emerging economies high transactions costs make up a good junk of financial costs. This model was significant in this study since it established the best practices that organizations need to adopt so that they can effectively manage their inventories and payables and how they relate to monetary success of petroleum and energy firms registered at the NSE.

### **2.3.4 Cost Trade-Off Theory**

Cost trade-off model of 1973 proposed by Kraus and Litzenberger who focused on the trade-off between the benefits that accrue from saving taxes and costs referred to as dead-weight that arise from liquidation. According to this model organizations` financing is

partly through with equity and with debt. This being the case, to preserve particular accepted current asset level, firms needs to involve both the cost of liquidity and illiquidity. Whenever there are levels of current assets that are very high organizations face unnecessary liquidity leading to low earning from assets since most of the monies are in stocks and money is idle earning nothing in the process while when the levels of debtors are high profitability is reduced.

Mielcarz, Osiichuk and Behr (2018) argue that cost of liquidity increases with the level of current assets occasioned by low rates of return. On the contrary, holding insufficient current assets forces firms to seek short run borrowing which has interest rates that are high so as to honor their obligations mean cost of illiquidity. With this the firm`s creditworthiness might be adversely affected limiting access to funds in the future and possible insolvency. Vogt (2017) is of the opinion that profit maximization for the firm might be as a result of holding an optimal level individual current assets. Conversely, current assets of the organization may increase if there is an investment above the optimum without any corresponding increase in the firms` profitability.

An explanation by Weinraub and Visscher (2018) is that production activities of a firm may halt if there are investments in current assets which decreases below set levels leading to the failure to pay obligations when due and inventory shortage. This can lead to losses in revenues from sales occasioned by credit policies that are restrictive. This model was considered in this study since it gives an emphasis on the need for an organization to have in place a working level of capital that reduces the costs of illiquidity and liquidity related to management of items of working capital which necessitate optimization of firm`s financial performance which were the focus of this study.

## **2.3 Empirical Review**

### **2.3.1 Debtors Management and Financial Performance**

Adamu (2016) assessed how WCM related with monetary success of pharmaceutical companies in Nigeria. Using the six listed Pharmaceutical institutions on the Nigerian Stock Exchange (NSE) documented by Fact Book of NSE 2013 but with a focus from 2006. The study used random effect model as well as the panel fixed effect in testing the



model of the research. The study employed simple regression in determining how WCM influences financial gains of six firms while in accounting for the individual heterogeneity of the sampled companies the study used longitudinal panel data. At the same time, using Stata 10 as the analysis tool an estimation of the fixed and random effect model was carried out. The results show that among the companies listed in the pharmaceutical sector in Nigeria a noteworthy relationship exist between monetary success and account receivable which is positive. The research used longitudinal panel information on the companies to be sampled in relation to account receivables. The current study sought to analyse data using regression examination which was not considered and focused on debtors management, cash management and inventory management.

Otieno *et al.*, (2016) on Microfinance banking institutions in Kenya sought to determine whether debtors risk relate to monetary success. The research employed pearsons correlation coefficient for analysis. The study focused on a population of 12 microfinance banks that are licensed. From the results it was established that management of debtors risk negatively affects earnings on assets. Memba, Njeru and Mbula (2016) assessed among Kenyan firms that the government finances through venture capital how accounts receivables relate with financial performance. Their study established that accounts receivables and financial performance are positively associated among companies financed by government through venture capital. This study used pearsons correlation coefficient for purposes of analysis and it was on one component of working capital management thus debtors risk management. The current study focused on WCM as a whole and monetary performance and the study analysed data using multiple regression analysis.

Mugo (2016) studied on how companies registered under NSE manufacturing industry and how management trade receivables affects the profitability. He established that there was noteworthy but negative effect on profitability by collection time of account receivables. The study further established that account receivables turnover positively but significantly affects the profitability of companies listed at the NSE manufacturing sector. This study focused only on profitability and management of trade receivables. The current study was on the how WCM relate to monetary performance and focused on extra variables like cash management and inventory management and creditors management.

Tibbs and Munene (2018) assessed how the managing of accounts receivables is affects monetary success. The research was in Embu County, Kenya at the Embu Water and Sanitation Company. Purely secondary information was collected using published reports of finance as a reference. The study results highlight that management of receivables as well as monetary performance had an association which is negative in nature and insignificant. Data was purely secondary information collected using published reports of finance as a reference. The current study collected data using both primary and secondary sources thus supporting making conclusive inferences.

Lyani (2017) investigated on how practices used for managing of accounts receivable relate to development among SMEs in Kakamega County Kenya. The research targeted population was 5401 SMEs registered with the county government. Data collection was from a questionnaire. The results indicate that account receivable management and growth have a relationship which is significant among the SMEs. The study concluded that since SMEs grow at a faster rate it is important that the formulation and adoption of policies and practices of receivable management should be the vocal point of managers and owners. Sources of primary were models and the study focused practices used in the managment of accounts receivables as the main element. The current study collected data using both primary and secondary sources and will put emphasis on three extra variables such as management of debtors, management of cash and management of inventory.

### **2.3.2 Inventory Management and Financial Performance**

Mwaura (2017) focused on retail superstores in Kenya seeking to establish the association between financial success and inventory turnover. Using a descriptive cross-sectional research design and collecting data on among other aspects cost of goods, sales, total liabilities and assets, current liabilities and assets, profitability before and after tax and interest, net profits and inventory balances for the period 2012-2016. Employing Stata software to analyse data it was found from correlation analysis that relationship monetary success and inventories turnover among retail superstores in Kenya is statistically significant and positive. The research considered a desgin in the form of cross-sectional focusing on inventory turnover. In current study, an explanatory design was employed and

the study focused on extra variables of management of debtors, management of cash and management of creditors.

Deng, Khan and Khan (2016) analysed empirically performance of inventory turnover focusing on a Local Supermarket in China. Their study collected data for 14 months among 27 different product categories both non-food and food from a category of over 20,000 products concentrating on sales. From their analysis they revealed that inventory turnover and profit margin percentages were negatively correlated. The research established that sales and turnover of inventory across all the product categories was positively correlated. Collected data for 14 months among 27 different product categories both non-food and food from a category of over 20,000 products concentrating on sales. The context of the current study was different and both primary and secondary data was collected therefore supporting making conclusive inferences.

Kiru, Koima and Kipkemboi (2018) investigated how conversion of cash cycles relates with inventory on monetary success. The inquiry was carried out amongst companies registered at the NSE on commercial and service industry. Data from secondary sources was employed from twelve firms listed under this sector majority their audited financial statement for 10 years. To enhance their exploration they used the operating cycle theory. Their study revealed for a firm to operate optimally and be successful then it has to consider all the working capital elements and manage them properly. The study used only sources of data that were secondary for example financial reports covering ten year period supplemented by the operating cycle model. Information was from secondary data collected. The current research was both quantitative and qualitative in nature using secondary and primary data sources which enabled not only inferences that were conclusive but supportive.

Kipkirui, Ondimu and Rotich (2018) assessed how management of inventory relates with monetary success. The inquiry was carried out amongst institutions registered at the NSE in Kenya in the manufacturing sector. The inquiry was among listed companies at NSE in the manufacturing industry with a focus of five years thus 2012 to 2016. The study

revelations were that independent variables looked at by the research thus, costs of holding inventory both in the stores and warehouses, maximum orders of inventory per, actual inventories per year and period taken for conversion of inventory and financial performance have a strong positive correlation. The research was qualitative in nature on inventory management. The current research used quantitative and qualitative information thereby providing more data on the topic and focused on other variables like debtors management, cash management and creditors management thus supporting making conclusive inferences.

Yeh (2016) in his research focusing on best definition of managing inventory came to conclusion that planning and control of inventory which deals with determining the right quantity required and when required for purposes of meeting customer demands is what is the focus of business management. On the other hand Mwangi (2016) while studying the relationship between a company's cash flows from operations and profitability and management of inventory among firms participating in the distribution of Kenya Breweries Limited beers in Nairobi City County, Kenya revealed existence of noteworthy association among business cash flows and management of inventory among beer distributors. Data was collected empirically. The current study enhanced this study supplementing secondary with primary data.

Njeru, Mbula and Memba (2016) investigated how monetary success relates with the management of inventory among Kenyan organizations provided with venture capital by the state. The population was 24 firms meeting this criterion. Questions were utilized covering the study objectives. The investigation results show management of inventory and monetary success of these institutions was positive and significant. This research used primary information extracted from questions on inventory management. The current study collected data using both primary and secondary sources and extra variables of debtors management, cash management and creditors management thus supporting making conclusive inferences.

### **2.3.3 Cash Management and Financial Performance**

Nwakaego (2016) investigated how financial performance and management cash conversion cycle of companies in the chemical, painting and building materials firms related. The study employed previous data that from yearly statements of these institutions. Using multiple ordinary least square methods as the main analysis tool hypothesis was tested. The study results show that the companies` financial performance, annual inventory ratio and accounts receivable ratio are significantly and positively related. The study findings further reveal that the effect of money exchange cycle and accounts payable ratio with companies` financial performance is insignificant but positive. The study employed previous data that from yearly statements of these institutions. Using multiple ordinary least square methods as the main analysis tool hypothesis was tested. The present study analysis was through multiple regression analysis however the variables considered in which include debtors management, managing of cash, inventory and creditors were not part of those looked at in this past study and it was based in Kenya.

Ndirangu (2017) investigated on how managing of cash impact on monetary success among institutions registered at NSE totaling to 15 that had been listed for seven years thus 2010-2016 reveal the size of an organization is insignificant and negatively affect monetary success. The inquiry shows money conversion cycle and monetary success is positive but insignificantly in relationship. Further the study found out that leverage and monetary success are momentous but positive among the companies listed. Secondary information was collected. The current research used sources which were primary supplemented by secondary thus supporting making conclusive inferences.

Petrova and Garania (2018) investigated how cycle of conversing cash and liquidity affect monetary success of 720 institutions in Russia for ten years. The study outcomes indicate that the cycle of cash conversion and the net operating assets in earnings have an inverse relationship among the companies reviewed. The investigation determined it is central for firms to ensure that they obtain a zero cash conversion cycle. This is necessary because if they want to increase their rate of return in the long term and the operation period inventory investments and other resources need to be converted with ease into cash and its equivalent.

Information that was of secondary nature was used. The current paper used firsthand and secondary information sources thus supporting making conclusive inferences.

Waseem, Khan, Ayaz, Osama and Ijaz (2016) explored effect of money changes cycle on working capital using monetary success among cement making businesses in Pakistan. Operating cycle theory was the theoretical orientation guiding this study. Study results show that money changes cycle and trade-off between assets and liabilities in current form related negatively. This research adopted a research design, descriptive cross-sectional and the focused was on money changes cycle. An explanatory design was used and focused on extra variables of management of debtors, management of cash and management of creditors.

Jajale (2017) focused on how managing cash and monetary performance associate among commercial banking institutions in Mogadishu, Somalia. The study population was all the 48 banking institutions operating in Mogadishu. Information for the study was collected using questions sent to the employees of these banks. The study results reveal that drivers of cash management affect in a significant but positive way financial performance of commercial banking institutions operating commercially in Mogadishu in Somalia. Information was collected using questionnaires. The current study collected data using both primary and secondary sources thus supporting making conclusive inferences.

Mulyungi and Mutesi (2018) did a study in Rwanda among corporative banks and that surveyed how managing of cash and monetary performance associate. The study focused on one organization Zigama Credit and Savings Bank with sample of its employees at 180. The exploration information collection sources were primary and secondary. It was revealed from the study that managing of cash momentarily relate with monetary performance of the organization. They concluded that management of cash among banking institutions is core since most if not all their transactions are carried out using cash for example lending and borrowing. The study focused on one organization Zigama Credit and Savings Bank. The study focused on a sector thus results would be replicated.

Thevaruban (2016) conducted a study which sought to establish whether monetary success of firms in the manufacturing industry at Sri Lanka was affected by the managing of cash. Using 20 firms as a sample in the manufacturing sector, sources of information being

secondary gotten from audited reports of finance of the sampled institutions in manufacturing sector. The research findings show managing of cash and financial performance has a negative and inconsequential relationship. Sources of information being secondary gotten from audited reports of finance of the sampled institutions in the industry of manufacturing. The current study collected data using both primary and secondary sources thus supporting making conclusive inferences.

#### **2.3.4 Creditors Management and Financial Performance**

Gekara and Kimotho (2016) assessed how financial performance is affect by management of credit among commercial banking firms in Kenya. The study was descriptive in nature. The exploration targeted population being managers at credit and recovery departments of the commercial banks. The study results show that profitability and credit management among commercial banks are negatively related. This research was descriptive in nature on credit management. In this study, an explanatory research design was used and focused on debtors management, cash management and inventory management as well as credit management.

Yahaya (2016) sought to establish how monetary performance is affected by WCM in Nigeria among firms in the pharmaceutical industry. The study period was 2006 to 2013 covering 8 years. Collection of facts was from sources of data that were secondary. Information from audited yearly reports of finance in eight years reviewed and bulletins sought from Nigeria Stock Exchange. The study results revealed that financial performance and average payment period of pharmaceutical companies in Nigeria have a positive and substantial relationship. Data used in this research was extracted from reports and statements. The study collected data at Nigerian Stock Exchange in form of audited financial statements and bulletins for purposes of analysis. The current study collected data using both primary and secondary sources thus supporting making conclusive inferences and the context is different from the past study.

Kumaraswamy (2016) investigated how managing of creditors' management and monetary success was done. He investigated how financial performance is impacted by working capital among firms in the Gulf Cooperation Council in the period 2008 to 2014. Using

the linear regression models the study investigated four hypotheses relating to average payment period elements. The study results revealed that financial gain from activities positively relate with average period of payment. The study on the other hand established that normal period of collection relates in a negative way with companies` profitability. The study results identified from the regression model that the most substantial factors was average payment period which was trailed by the normal period of payment. Used the linear regression models the study investigated four hypotheses relating to average payment period elements. This research sought an analysis of information collected by multiple regression analysis not but never looked at debtors management, managing cash, inventory and creditors this past study and it was based in Kenya.

Ogbonnaya and Madugba (2016) explored how financial performance is affected by average payment period among firms operating in the manufacturing sector in Nigeria. Using multiple regressions for purposes of analyzing data extracted audited financial reports of these firms, the study established that normal period of payment significantly affects earnings on the working capital and earning per security. The conclusion drawn from this is that monetary success of Nigerian firms operating under manufacturing can be improved by having in place an efficient system to manage average payment period. As a result of it was recommended by the study that to have an efficient system to manage average payment period it necessary for companies to hire experts to avoid issues of stock out. Categorically, it has been shown from the study results that managing efficiently of normal period of payment can lead to monetary success and firms in manufacturing industry can survive and stay afloat in the long run. In this study hypothesis was by the ordinary multiple least squares methodology and was on cash conversion cycle in Nigeria The current research sought an analysis by a multiple regression analysis on variables not looked at which include debtors management, managing cash, inventory and creditors and was based in Kenya.



## 2.4 Summary of Literature Review and Research Gaps

This part examines gaps identified from reviewed empirical studies.

**Table 2.1: Summary of Literature Review and Research Gaps**

<b>Author</b>	<b>Focus of the Study</b>	<b>Key Findings</b>	<b>Knowledge gaps</b>	<b>Focus of the current study</b>
Kipke mboi, Kiru & Koima (2018)	This study sought to establish how financial performance is affected cycles of converting cash among companies listed at the NSE, service and commercial sector	If companies are to have successful operations which are optimal then they should be properly manage all the items of working capital	The study used only sources of data that were secondary for example financial reports covering ten year period supplemented by the operating cycle model. Information was from secondary data collected	The current research was both quantitative and qualitative in nature using secondary and primary data sources which enabled not only inferences that were conclusive but supportive.
Rotich, Kipkirui and Ondimu (2018)	The inquiry was how financial performance and management of inventory relate among companies registered with NSE in Kenya from the manufacturing sector	The research revealed that variables considered in the study like cost of holding inventory in the stores and warehouses, inventory conversion period, inventory maximum orders in a year, authentic inventory in a	The research was qualitative in nature on inventory management	The current research used quantitative and qualitative information thereby providing more data on the topic and focused on other variables like debtors management, cash management and creditors management

		year combined have a correlation that is strong and positive.		thus supporting making conclusive inferences
Tibbs and Munene (2018)	How the managing of accounts receivables affects monetary success at the Embu Sanitation and Water Company in Embu	It was established that managing of receivables and performance of monies have a relationship that is negatively and insignificant	Data was purely secondary information collected using published reports of finance as a reference.	The current study collected data using both primary and secondary sources thus supporting making conclusive inferences
Petrova and Garania (2018)	Relationship between the cycle of conversing cash and liquidity on monetary success among 720 institutions in Russia for ten years	Results show that cash conversion cycle and the net operating assets in earnings have an inverse relationship among the companies reviewed.	Information sought was secondary in nature	The current research used firsthand and secondary information sources thus supporting making conclusive inferences
Mulyungi and Mutesi (2018)	How financial performance is affected by management of cash in Rwanda among corporative banks	It was revealed from the study that managing of cash momentarily relate with monetary performance of the organization.	The study focused on one organization Zigama Credit and Savings Bank	The study focused on a sector thus results would be replicated
Lyani (2017)	The study was about how development enterprises in	The study results show that growth of SMEs and accounts	Sources of primary were models and the study focused practices used in	The current study collected data using both primary

	Kakamega County, Kenya relates with procedures employed in the managing of receivables	receivable management practices have a significant relationship. Further the study established that growth of SMEs was not in tandem with policies and practices used in the management of accounts receivables	the management of accounts receivables as the main element	and secondary sources and will put emphasis on three extra variables such as management of debtors, management of cash and management of inventory
Mwaura (2017)	This study sought to establish how retail superstores in Kenya monetary performance are affected by turnover in inventory.	The study results using correlation established that financial performance and inventory turnover of retail superstores operating in Kenya have a relationship that was strong positive and statistically significant.	Cross-sectional research design was considered and the focus was on inventory turnover	In current study, an explanatory design was employed and the study focused on extra variables of management of debtors, management of cash and management of creditors
Ndirangu (2017)	Investigated on how managing of cash impact on monetary success among institutions registered at NSE totaling to 15 that had been listed for seven years thus 2010-2016	The study found out that leverage and monetary success are momentous but positive among the companies listed	Secondary information was collected	The current research used sources which were primary supplemented by secondary thus supporting making conclusive inferences

Jajale (2017)	How management of cash affects financial performance among commercial banking institutions in Mogadishu, Somalia	The study results reveal that drivers of cash management affect in a significant but positive way commercial banking institutions monetary performance with operation in Mogadishu in Somalia	Information was collected using questionnaires	The current study collected data using both primary and secondary sources thus supporting making conclusive inferences
Adamu (2016)	The investigation was on WCM and monetary success relationship	Account receivables in a positive and significant way relate with monetary performance	The research used longitudinal panel information on the companies to be sampled in relation to account receivables	The current study sought to analyse data using regression examination which was not considered and focused on debtors management, cash management and inventory management
Otieno <i>et al.</i> , (2016)	The research on monetary success and management of debtors risk relate to each other. The study focused on microfinance banking	It was discovered that managing of debtors risk negatively affects earning on assets.	This study used pearsons correlation coefficient for purposes of analysis and it was on one component of working capital management thus debtors risk management	The current study focused on WCM as a whole and monetary performance and the study analysed data using multiple

	institutions in Kenya			regression analysis
Mugo (2016)	This study was on how profitability is affected by management of trade receivables among companies registered in NSE operating in Kenya`s manufacturing sector.	The study established that profitability and accounts receivables collection period have an adversely and considerably association. The study also found out that profitability and bad debts receivables negatively but inconsequentiall y related.	This study focused only on profitability and management of trade receivables	The current study was on the how WCM relate to monetary performance and focused on extra variables like cash management and inventory management and creditors management
Memba , Njeru and Mbula (2016)	This study focused on companies that had been funded by the Kenyan government through venture capital and sought to find out how management of inventory relates to performance of monies	It was discovered to be momentous and positive association among inventory management and monetary success of companies reviewed	This research used primary information extracted from questions on inventory management	The current study collected data using both primary and secondary sources and extra variables of debtors management, cash management and creditors management thus supporting making conclusive inferences

Ikechukwu and Nwaka ego (2016)	Managing of Cash Conversion Cycle impact on monetary success among companies dealing in the manufacture of chemicals, paint and building materials in Nigeria	It was established that accounts receivable ratio and inventory ratio annually have a substantial but positive relationship with monetary success	In this study hypothesis was by the ordinary multiple least squares methodology and was on cash conversion cycle in Nigeria	The present research sought an analysis on information by multiple regression analysis not not looked at in the research which include debtors management, managing cash, inventory and creditors and was based in Kenya
Gekara and Kimotho (2016)	This study was on commercial banking institution in Kenya and how financial performance is influenced by management of credit	It was established from the study results that profitability and management of credit are negatively related.	This research was descriptive in nature on credit management	In this study, an explanatory research design was used and focused on debtors management, cash management and inventory management as well as credit management
Yahaya (2016)	WCM effect on monetary performance of businesses dealing with pharmaceuticals Nigeria	This researcher discovered momentous and positive association among monetary success and	Data used in this research was extracted from reports and statements. The study collected data at Nigerian	The current study collected data using both primary and secondary

		normal period of payment.	Stock Exchange in form of audited financial statements and bulletins for purposes of analysis	sources thus supporting making conclusive inferences and the context is different from the past study
Deng, Khan and Khan (2016)	Analysed empirically performance of inventory turnover focusing on a Local Supermarket in China.	It was established that inventory turnover and profit margin percentages were negatively correlated. The study also found out that inventory turnover and sales across all the product categories was positively correlated.	Collected data for 14 months among 27 different product categories both non-food and food from a category of over 20,000 products concentrating on sales	The context of the current study was different and both primary and secondary data was collected therefore supporting making conclusive inferences
Hong Mo Yeh (2016)	The best definition of inventory management	It was found out that the planning and control of inventory which deals with determining the right quantity required and when required for purposes of meeting customer demands is what is the focus of business management	Data was collected empirically	The current study enhanced this study supplementing secondary with primary data
Mwangi (2016)	The relationship between a	Results revealed a relationship that was	This research used primary information	The current study collected

	company`s cash flows from operations and profitability and management of inventory among firms participating in the distribution of Kenya Breweries Limited beers in Nairobi City County, Kenya	significant among flows of cash from operations and management of inventory among beer distributors.	extracted from questions on inventory management	data using both primary and secondary sources and extra variables of debtors management, cash management and creditors management thus supporting making conclusive inferences
Nwaka ego (2016)	Investigated how financial performance and management cash conversion cycle of companies in the chemical, painting and building materials firms related	Findings further reveal that the effect of money exchange cycle and accounts payable ratio with companies` financial performance is insignificant but positive.	The study employed previous data that from yearly statements of these institutions. Using multiple ordinary least square methods as the main analysis tool hypothesis was tested	The present study analysis was through multiple regression analysis however the variables considered in which include debtors management, managing of cash, inventory and creditors were not part of those looked at in this past study and it was based in Kenya.
Waseem, Khan,	Explored effect of money changes cycle	Results show that money changes cycle	This research adopted a research design,	An explanatory design was

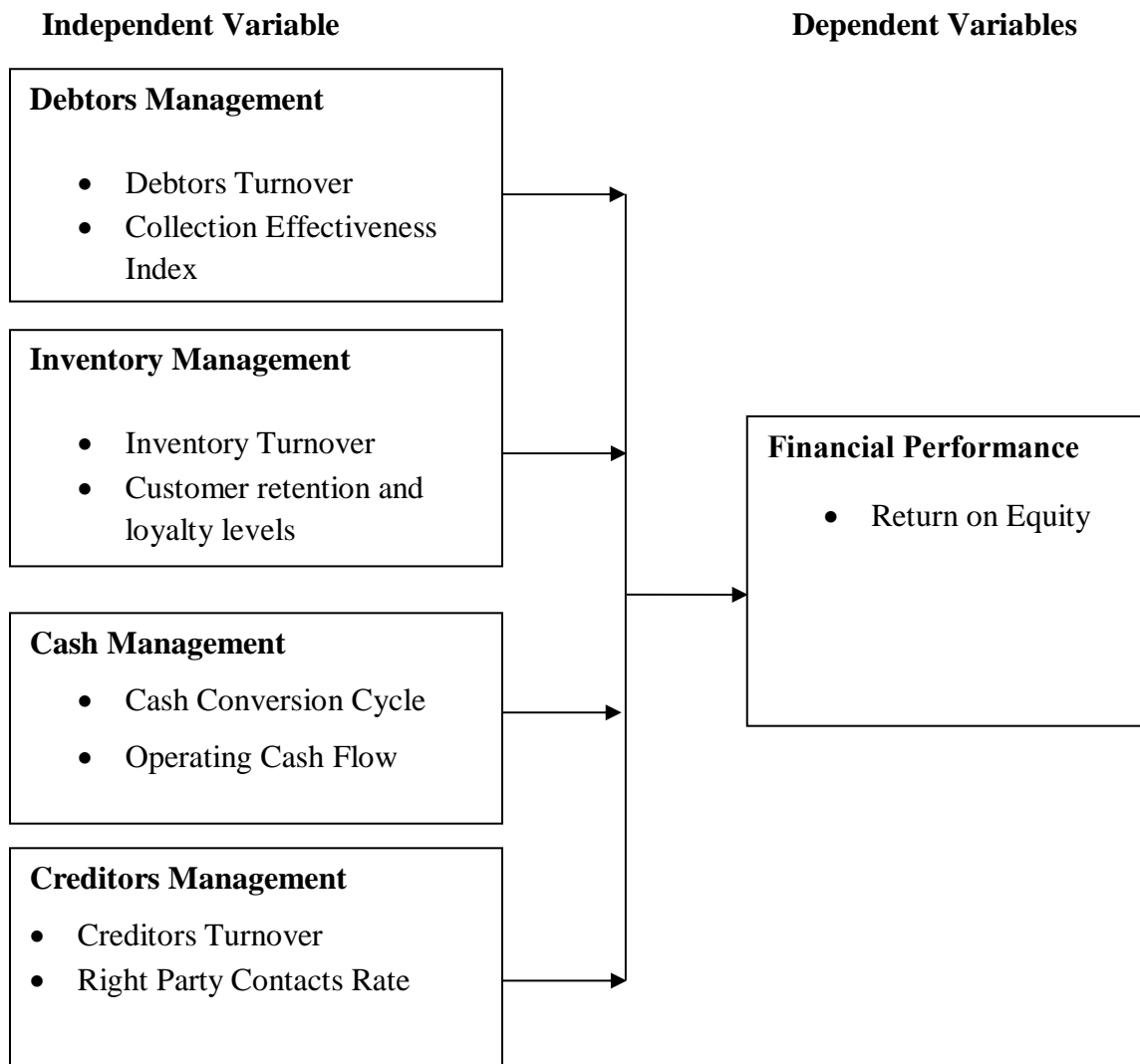


Ayaz, Osama and Ijaz (2016)	on working capital using monetary success among cement making firms in Pakistan	and trade-off between assets and liabilities in current form related negatively	descriptive cross-sectional and the focused was on money changes cycle	used and focused on extra variables of management of debtors, management of cash and management of creditors
Kumara swamy (2016)	Investigated how financial performance is impacted by working capital among firms in the Gulf Cooperation Council in the period 2008 to 2014	The study on the other hand established that normal period of collection relates in a negative way with companies` profitability.	Used the linear regression models the study investigated four hypotheses relating to average payment period elements.	This research sought an analysis of information collected by multiple regression analysis not but never looked at debtors management, managing cash, inventory and creditors this past study and it was based in Kenya
Thevar uban (2016)	Conducted a study which sought to establish whether monetary success of firms in the manufacturing industry at Sri Lanka was affected by the managing of cash	Findings show that management of cash and financial performance has a negative and inconsequential relationship	Sources of information being secondary gotten from audited reports of finance of the sampled institutions in the industry of manufacturing	The current study collected data using both primary and secondary sources thus supporting making conclusive inferences

**Source: Various Literatures Reviewed (2022)**

## 2.5 Conceptual Framework

This is a sketch on how investigation elements relate. The variables both dependent and independent are as presented in Figure 2.1. Independent variables were management of debtors, inventory, cash and creditors while the dependent variable was how firm finances were performing among petroleum and energy institutions registered at NSE.



**Figure 2.1: Conceptual Framework**

**Source: Researcher (2022)**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section examines procedures as well as approaches for inquiry. This section encompasses study philosophy, research strategy, study target population and how sampling was carried out. This chapter also incorporates instruments used to collect information and its technique. Further, this section covers how facts were analyzed, presented and ethics contemplation.

#### **3.2 Research Design**

Since there was enough secondary data on the study issue available in the market for analysis and fact-checking, this study used a descriptive research design. It was also taken into consideration because its main goal was to determine the causes and effects among the variables and its emphasis was on why of the inquiries (Kothari, 2019). The annual financial statements of the companies were used in the study, together with participant primary data. The strategies and procedures of the study research framework were chosen taking into account the predetermined parameters of the study in order to decide what to include or not (Yin, 2017).

#### **3.3 Target Population**

Pyrczak and Tcherni-Buzzeo (2018) refers target population as the largest populace from where the sample was selected. Unit of analysis were companies listed under petroleum and energy industry at NSE comprising Total Kenya Ltd with a workforce of 360, KenGen Ltd with a workforce of 2,500, Kenya Power & Lighting Co Ltd with a workforce of 7,000 and Umeme Ltd with a workforce of 1,635. The unit of observation was employees in finance, supply chain & logistics, audit, commercial services & sales and the regional coordination departments working at Total Kenya Ltd, KenGen Ltd, Kenya Power & Lighting Co Ltd and Umeme Ltd. Table 3.1 presents the study target population were 367 employees from Total Kenya Ltd, KenGen Ltd, Kenya Power & Lighting Co Ltd and Umeme Ltd.

**Table 3.1 Target Population**

<b>Department</b>	<b>Total Kenya</b>	<b>KenGen</b>	<b>Kenya Power &amp; Lighting Co</b>	<b>Umeme</b>	<b>Target Population</b>
Finance	13	27	36	19	95
Supply Chain & Logistics	8	23	33	15	79
Audit	7	18	29	13	67
Commercial Services & Sales	9	21	25	17	72
Regional Coordination	5	15	23	11	54
<b>Total</b>	<b>42</b>	<b>104</b>	<b>146</b>	<b>75</b>	<b>367</b>

**Source: Researcher, (2022)**

### 3.4 Sampling Design

According to Onwuegbuzie and Leech (2017), sampling design is a technique used to get data from the entire population by looking at a tiny portion. The stratified sampling technique was utilized in this study to guarantee that every organization participating was chosen for the investigation. Stratified sampling was the best technique for guaranteeing that there was no bias in the selection of the respondents. The researcher was directed in choosing the sample size by the required level of confidence in the data, the type of analysis used, the precision, and the total population. To determine sample size a formula by Yamane as follows assuming confidence level is 95% was used (Field, 2017).

$$n = \frac{N}{1 + Ne^2}$$

n = Size of the Sample

N = study populace

e = alpha level, 0.05

$$n = \frac{367}{1 + 367(0.05^2)}$$

n=191

In determining the sample of the study Yamane's Formula above was employed. Using populace of 367 respondents, size of the sample based on the formula was 191.

In this case, 191 employees was the sample size from the four organizations listed with petroleum and energy industry at NSE comprising of Total Kenya Ltd (23), KenGen Ltd (54), Kenya Power & Lighting Co Ltd (74) and Umeme Ltd (40) who had and understand the information required in this study in relation to WCM and financial performance. As indicated in Table 3.2 the study shall get information from employees in each organization from the following departments; finance (50), audit (35), regional coordination (28), supply chain and logistics (41) and commercial services and sales (37).

**Table 3.2 Sample Size**

<b>Department</b>	<b>Total Kenya</b>	<b>KenGen</b>	<b>Kenya Power &amp; Lighting Co</b>	<b>Umeme</b>	<b>Target Population</b>
Finance	7	14	19	10	50
Supply Chain & Logistics	4	12	17	8	41
Audit	4	9	15	7	35
Commercial Services & Sales	5	11	12	9	37
Regional Coordination	3	8	11	6	28
<b>Total</b>	<b>23</b>	<b>54</b>	<b>74</b>	<b>40</b>	<b>191</b>

**Source: Researcher, (2022)**

### **3.5 Data Collection Instrument**

Information in firsthand form was by questions both structured and unstructured. Benefits of this was that its faster and easy to collect the required information. The instrument used for data collection was questionnaire which was organized in five parts namely A to F. Part A focused on participant information, part B was on managing debtors, part C inventory

management, part D cash management, and part E creditors management. Data on monetary performance was collected on return on equity using a data abstraction tool. Using the likert scale format the researcher formulated questions requiring the respondents to answer with what they were in agreement of disagreement. At the same time, each variable had questions that were open ended for purposes of capturing the thoughts on the respondents in relation to how variables relate (Kothari, 2009).

### **3.5.1 Validity of Research Instrument**

Schindler and Cooper (2014) refer how accurate and meaningful an investigation device was as validity. This was the accuracy of a research device in relation to how it measures what it sought to which was enhanced by experts like the supervisor. Validity of research instruments was enhanced by using sources that are honest. To make sure that the questions did not have problems of clarity they were pretested using piloting and rectified accordingly. This was done by selecting 20 people appropriately to participate but exempted from the research. Pilot testing was important for purposes of spotting errors before collection of data. In addition, the validity of the tool was scrutinized by University lecturer. Criterion validity was carried out to measure how well one measure predicts an outcome for another measure and construct validity was measured to check how appropriate inferences made measure the construct intended through the use of measurements or observations (Mohajan, 2017).

### **3.5.2 Reliability of Research Instrument**

Bougie and Sekaran (2016) give a definition of reliability as the degree to which tools used in investigation for purposes of data collection were able to produce results that were stable and consistent over time. This was the consistency and reproducibility of the investigation tool. For the overall instrument and variables considered reliable and adequate the Cronbach's alpha was 0.7 or more. Cronbach's alpha tests how reliable an instrument was by finding the research tool items average correlation or internal consistency and gauging reliability which are a coefficient alpha equal to or more than 0.7. As shown in Table 3.3 values of Alpha relating to variables was found to be  $>0.7$ . This means that threshold was met and no editing of the research instrument was required in regards to debtors

management, inventory management, cash management and creditors management variables were concerned (Katehakis, Melamed & Shi, 2016).

**Table 3.3 Summary of the Reliability Tests**

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>N of Items</b>
Debtors Management	.954	5
Inventory Management	.982	5
Cash Management	.859	5
Creditors Management	.935	5

### **3.6 Data Collection Procedure**

Data was then by questions and abstraction tool by the researcher. A sample of 191 people was given questionnaires to provide information. A review guide document was employed in collection of data on financial performance covering return on equity. In dispatching the questions a drop and pick method was utilized. Every effort on time frame and not inconveniencing participants was made. The researcher obtained permission from the University in form of an introduction letter for individual participants before embarking on collecting information. The abstraction tool gathered secondary information for 5 years thus 2016-2020.

### **3.7 Data Analysis and Presentation**

On completion of filling questionnaires, they were picked from the field by the researcher for purposes of cleaning. This ensured that errors that had occurred in the field during data collection were identified and corrected accordingly. Once this was done the collected data was coded in readiness for analysis. In order to analyse quantitative data inferential and descriptive statistics was used. Normal deviations, percentages, means and frequencies were the descriptive statistics used. Statistics in inferential form through the use of multiple regression analysis made predictions of the association among by producing a weighted estimation equation.

As recommended by Das and Imon (2016), in determining the nature and strength of correlation ( $r$ ) which is the Pearson Product moment was used. Coefficient of determination

(R<sup>2</sup>) used to gauge amount of disparity amongst variables described by independent variables. On whether the direction was negative or positive between variables and the comparison of relative association between individual variables against dependent variable standard beta ( $\beta$ ) coefficient was used. On determining the predictor variables` influence, the researcher used these variables to determine the multiple regressions model in a stepwise methodology. From this model researcher was able to get the variables that best forecast the dependent variable.

The multiple regression analysis model was used to determine whether the dependent variable under discussion was predicted by all variables that were independent (Saunders, Lewis & Thornhill, 2016). This was done to demonstrate how closely the variables under consideration are related to one another. By calculating averages of financial performance using return on equity, time series data for the financial performance of Total Kenya Ltd, KenGen Ltd, Kenya Power & Lighting Co Ltd, and Umeme Ltd for the period under review were also computed and transformed to create a single observation..

The multiple regression model equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby  $Y$  = Financial Performance

$\beta_0$  = Intercept

$X_1$  = Debtors Management

$X_2$  = Inventory Management

$X_3$  = Cash Management

$X_4$  = Creditors Management

$\beta_1, \beta_2, \beta_3$  and  $\beta_4$  are Coefficients

$\varepsilon$  is the error term

### 3.8 The Diagnostic Tests

Analytical tests were considered in this study for guidance. The section that follows discusses some of the tests employed in the study.



### **3.8.1 Linearity Test**

To determine the association among variables and whether they were linearity related the researcher performed linearity test. In linear regression and correlation analysis this is prerequisite. For the relationship between independent variables to be considered linearly dependent then deviation of the value of significance from linearity should above 0.05 while a value less than 0.05 shows that there is no linear association among variables (Arai, 2016).

### **3.8.2 Normality Test**

With the aid of Shapiro-Wilk test the researcher tested normalcy. If P-value was below or equal to 0.05 data was considered normal. The indication of this distribution is that it is normal and can only be rejected at a level of significance which is 5 per cent. While when P-value is more than 0.05 then it was a sufficiently distributed variable which does not lead to underestimation of standard errors and any inflation of statistics thus considered fit for statistical analysis (Knapp, 2017).

### **3.8.3 Multicollinearity Test**

In finding out that there is no problem of collinearity in the predictor variables having descriptive influence over others; the researcher performed tests of multicollinearity. To deduce whether multicollinearity was present the Variance Inflation Factor (VIF) was used whereby if VIF is more than 10 signified there was multicollinearity (Daoud (2017)). This test was important in this study because reliability of multiple regressions models was reduced since an increase in coefficients of standard error sees an increase in collinearity.

### **3.8.4 Heteroscedasticity Test**

Heteroscedasticity test by Wiedermann, Artner & Eye, (2017) tested whether variance of errors were depending upon the variables that were independent from regression. Null hypothesis test was on constant variance among the alternative and the error term to ascertain whether they were a multiplicative function of a single variable or many variables. The P-value needed to be less than 0.05 indicating presence of heteroscedasticity which means that in the error term there was no existence of a constant discrepancy thereby

rejecting the null hypothesis at a significant level of 5 per cent. At the same, the presence of a large chi-square indicated heteroscedasticity suggesting the study error term is not constant.

### **3.9 Ethical Consideration**

In carrying out the study, the researcher ensured that he observes the highest standards of ethics. To achieve these standards he first obtained a clearance letter from Kenyatta University School of business. He was also obtained a letter from NACOSTI for purposes of collecting data. Further, to avoid plagiarism he recognized all the sources used in the research. Lastly, data collection and analysis was presented truthfully.

## **CHAPTER FOUR**

### **ANALYSIS, RESULTS AND DISCUSSIONS**

#### **4.1 Introduction**

An investigation was carried out in this study to establish the relationship between WCM and monetary performance among petroleum and energy institutions registered in NSE. This chapter highlights the research results including; general information, data analysis by objectives and the effects of WCM variables on financial performance by the respondents. Data on WCM and financial performance was analyzed through statistics in form of inferences and descriptive.

#### **4.2 Response Rate**

The study administered 191 tools of data collection to the respondents, from these 127 got filled and returned for processing and purposes of analysis. However, no questionnaire was received from Umeme limited owing to the fact that its offices are in Uganda but it is cross listed at the NSE. The responses rate was 66.5% which was considered not only a representative but adequate of total study populace. This argument is supported by Mugenda and Mugenda (2013) who were of the opinion that any rate of responses of 50% is considered suitable for purposes of carrying out analysis and presentation. They further argued that responses of 60% are considered decent whereas responses at the rate above 70% were but outstanding.

#### **4.3 General Information**

The research sought find out the company profitability for the years under review thus 2016 to 2020. The study findings are depicted in Table 4.1.

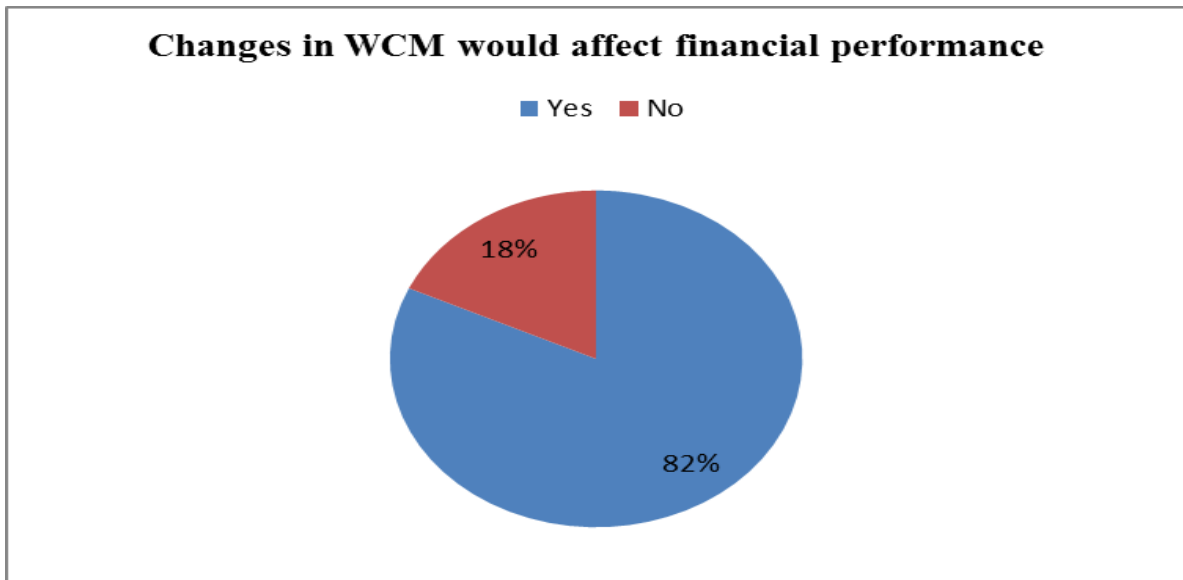
**Table 4.1 Company Profitability**

	2016	2017	2018	2019	2020
Total Kenya Ltd	2.25 B	2.7 B	2.3 B	2.5 B	3.3 B
KenGen Ltd	11,264 Million	11,461 Million	11,746 Million	11.6 Billion	13.9 Billion
Kenya Power & Lighting Co Ltd	16,930 Million	13,652 Million	11,917 Million	10,530 Million	5,312 Million
Umeme Ltd	Ushs. 198,122 Million	Ushs. 44,600 Million	Ushs. 581,198 Million	Ushs. 594,100 Million	Ushs. 478,989 Million

As shown in Table 4.1, Total Kenya Ltd. reported 2.25 million in 2016 as its lowest profit, while KenGen Ltd. reported 11.264 million in 2016 as its lowest profit and 13.9 billion in 2020 as its highest. Kenya Power & Lighting Co. Ltd. reported 5,312 million in 2020 as its lowest profit, while Total Kenya Ltd. reported 16.930 million in 2016 as its highest. The research also reveals that Umeme Ltd. recorded the lowest profits in 2017 at Ushs. 44,600 million and the greatest profits in 2019 at Ushs. 594,100 million. The research indicates that the improvement in profits was as a result of an increase in electricity tariffs which went up by 6.94% in July 2018, followed by another 5.89% in July 2019 (Kenya & Lighting, 2020).

The interest of the researcher was establishing from respondents overall performance trend for the last 5 years. The study outcomes show that petroleum and energy institutions listed in NSE their performance in the last five years did not have any frequency of growth but there was an increase from 2016 to 2018. In the year 2019 there was a fall in performance for all the firms other than Umeme Ltd. In 2020 there was an improvement in performance at Total Kenya Ltd and KenGen Ltd while there was a fall Kenya Power & Lighting Co Ltd and Umeme Ltd. The study concludes that the energy sector is very important to the Kenyan economy (Munene, Odongo & Nyambane, 2019).

The study wanted to establish whether participants stated that changes in WCM would affect financial performance of companies among petroleum and energy institutions registered at NSE. The study outcomes were depicted Figure 4.1.



**Figure 4.1 Changes in WCM would affect financial performance**

As in Figure 4.1 it is indicated most representing 82% respondents thought changes in WCM would affect financial performance of companies among petroleum and energy institutions registered at NSE. This was as opposed to 18% of the respondents who thought changes in WCM would not affect financial performance of companies among petroleum and energy institutions registered at NSE. The study shows that working capital management has a significant impact on the financial performance of Kenyan companies in the energy sector as poisted by Abeywardhana (2017).

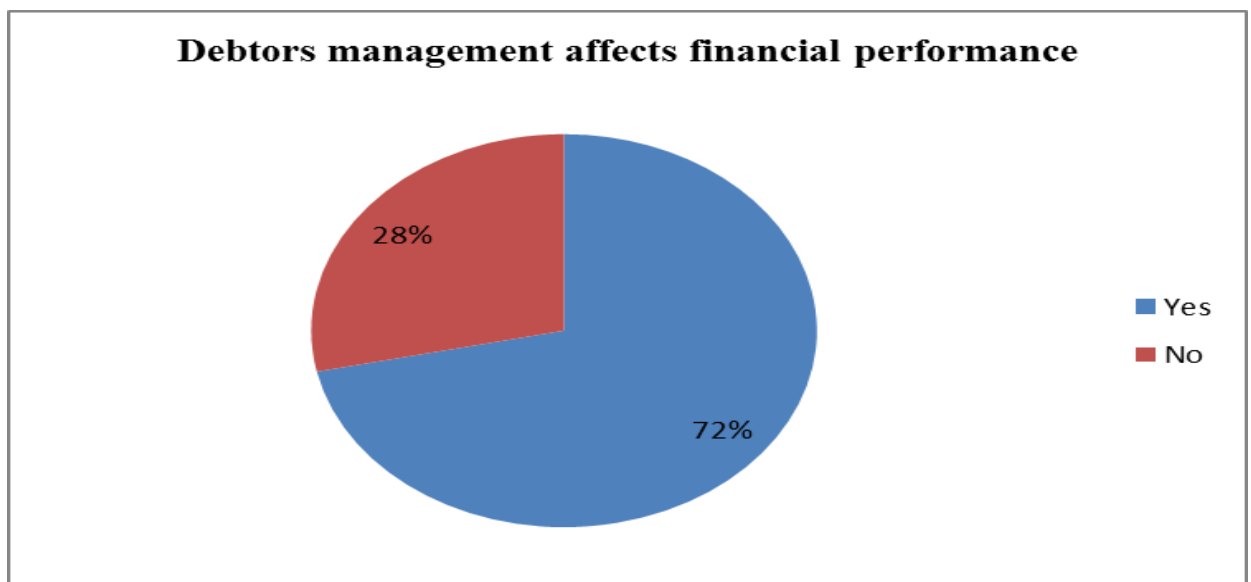
#### **4.4 Analysis by Objectives**

The general objective was an investigation of the effect of WCM on monetary performance of petroleum and energy firms registered in NSE. Specific objectives of research were: an investigation of how debtors management relate with monetary performance among petroleum and energy firms registered in NSE; evaluate how managing inventory associate with monetary performance of energy and petroleum institutions listed at NSE; ascertain

how managing cash related with monetary performance of energy and petroleum institutions listed at NSE and assess the association of managing creditors and monetary performance of energy and petroleum businesses listed at NSE.

#### **4.4.1 Effect of Debtors Management on Financial Performance**

The first objective was an investigation of how managing debtors associate with monetary performance among energy and petroleum businesses registered with NSE. The researcher was interested in establishing from the respondents how debtors management affects monetary performance. The outcomes from the information collected are as shown in Figure 4.1.



**Figure 4.2 Debtors Management Affects Financial Performance**

Figure 4.2 indicates that majority of participants representing 72% stated they thought debtors management affects financial performance. This was as opposed to 28% of the respondents who argued against this.

A clarification by participants was required in relation to whether debtors management affects financial performance. The respondents stated that debtors form part of the substantial portion of the current assets of the organizations, companies that use debt in their financial structure creates financial leverage that can increase investment returns if the profits generated exceed its costs, since interest paid on debt can be allocated as an expense, managing accounts receivable revenue will affect financial performance because

without a proper strategy, the process of designing a policy that governs a business extends to its customer base and monitoring similar systems. Receivables management affects financial performance because the process is important in minimizing as much as possible the amount of bad debt an organization will incur as a result of non-repayment by customers. Respondents cited the complex, rigorous debt monitoring processes involved in late payments, the legal aspects identified when granting credit to customers, the competence and integrity of the team. In respect of the debt collection policy, the development, implementation and regular review of the debt collection policy is considered very important while debt management are some of the ways an organization can use to manage debtors.

The respondents were required to state some of managing debtors issues that relate with monetary performance. Some effects that the respondents stated include; the amount of debt that an organization has affects the credit score, organizations can loss finance if there is outright default arising from failure by customers in meeting their commitments when they fall due in regards to borrowing, it allows an organization to manage clients better. The respondents further argued that having an effective debtors management affects financial performance since it ensure the firm receives the full amounts of money owed on time, helps organizations to come up with various payment options, allows organizations to forecast the performance of the business and be able to identify the potential cash flow issues well ahead of time before they happen. It also allows organizations to adjust their payment plans.

Study participants were asked about the extent of impact that managing accounts receivables has on monetary performance in regards to energy and petroleum companies listed at NSE on a Likert measure of 1 to 5, in that: not sure was represented by 1; strongly disagree with 2; disagree with 3; agree with 4 and strongly disagree with 5. The study outcomes are presented in a Table 4.2.

**Table 4.2 Effect of Debtors Management on Financial Performance**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>
For comparison purposes the company relates its debtors turnover ratio with those of firms that are in similar industry with same revenue levels	127	4.2913	.96864
The company compares the amount that was collected in a given time period to the amount of receivables that were available for collection	127	4.2362	.91249
The company revises credit collections by changing the credit terms a business offers	127	3.9843	.91707
The company increases collection efficiency by making it easy for customers to pay on time	127	4.2047	.92872
The company rewards efficiency payments by giving customers an incentive to pay their bills early	127	4.2283	1.00150

**Source: Researcher (2022)**

According to study findings in Table 4.2, the majority of participants agreed that the company compares its debtors turnover ratio to other businesses in the same industry that have similar levels of sales, with a mean value of 4.2913. According to the second statement, the company determines the aspects of debtors management that have the greatest impact on financial performance on a scale of 1.5 by comparing the amount collected over a given time period to the amount of receivables that were available for collection, with a mean value of 4.2362. Additional debtors management factors that have an impact on financial performance include: rewarding efficient payments by offering incentives to customers to pay their bills early; increasing collection efficiency so that it is simpler for customers to pay on time; and revising credit collections by altering the terms



that a business offers. These factors have average values of 4.2283, 4.2047, and 3.9843, respectively.

The p-value approach was used in this study to test if the influence of debtors management on the financial performance of petroleum and energy enterprises listed at NSE was significant or not. Test findings from the study, is shown in Tables 4.3 and 4.4.

**Table 4.3 Debtors Management - One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
The effect of debtors management on financial performance	127	1.1102	.31442	.02790

**Table 4.4 One-Sample t-Test-Debtors management**

Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The effect of debtors management on financial performance	39.792	126	.000	1.11024	1.0550	1.1655

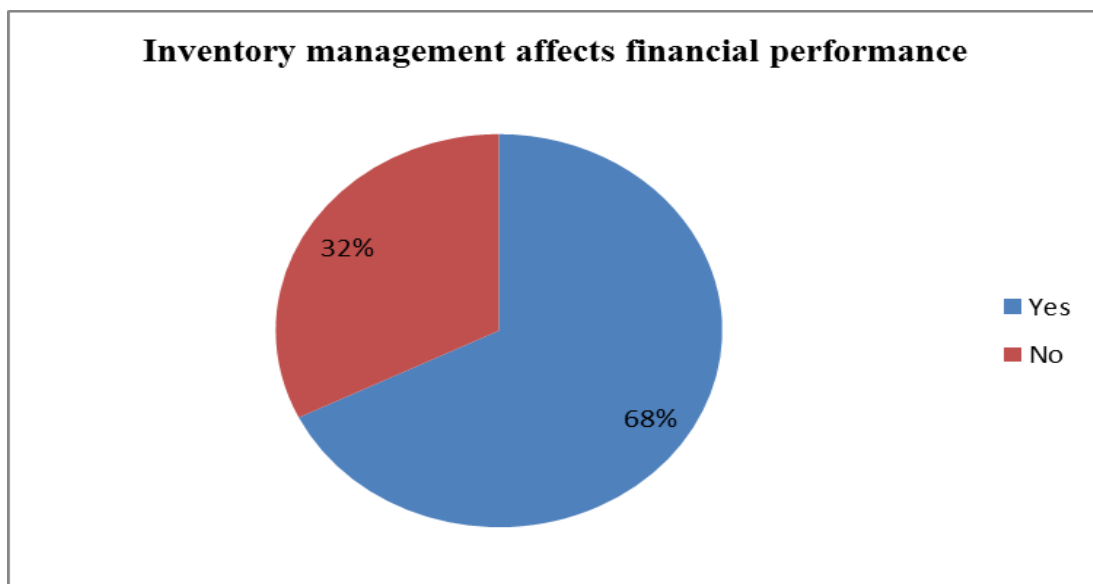
**Source: Researcher (2022)**

From the test results in Table 4.4 indicate that statistic test was 39.792 having a P-value of 0.000 with a 95% confidence interval. The p-value was smaller than the level of alpha which is ( $P \leq 0.05$ ). Alternative hypothesis was adopted in this case with a rejection of the zero hypotheses that debtors management relates with monetary performance of petroleum and energy businesses registered at NSE at significant levels. These outcomes are in tandem with those of Memba, Njeru and Mbula (2016) who assessed among Kenyan firms that the government finances through venture capital how accounts receivables relate with

financial performance. Their study established that accounts receivables and financial performance are positively associated among companies financed by government through venture capital.

#### **4.4.2 Effect of Inventory Management on Financial Performance**

The second objective was to evaluate effect of managing inventory management on monetary performance among energy and petroleum businesses registered in NSE. The goal of this study was to determine from respondents whether inventory management had an impact on financial performance. The results of the investigation are shown in Figure 4.3.



**Figure 4.3 Inventory management affects Financial Performance**

Study outcomes are shown in the Figure 4.3 indicating most respondents 68% in the study stated inventory management affects financial performance whereas 32% of the respondents argued that inventory management does not affect financial performance.

The study sought a clarification in regards to whether inventory management affects financial performance. The respondents stated that if an organization management of inventory is effectively done, there is a high likelihood of profitability whereas if an organization has poor management of inventory this will lead to poor performance in

finance. The respondents argued that in organizations, the management of inventory is not only a delicate issue but a difficult task, inventory of all kinds represents an important component of a firm capital thus failure or achievement by an enterprise hinge on largely on how inventory management has performed. Inventory management not only increases a company`s profitability but also can help in organization in solving their liquidity problem and inventory management plays a key role in determining organizations` financial positions.

The respondents were asked to state some of the issues of managing inventory that relate to monetary performance. Some effects that respondents stated include; without having in place a system of managing inventory that is effective that assists the firm to balance the stock levels to acceptable rates which will not only erode cash flow but it risks holding dead stock which can be obsolete, if an organization is able to have a higher turnover of inventory and there will be a higher suppression of expenses that can lead to improved monetary performance. Additionally participated stated that financial performance of an organization is positively or negatively affected by inventory management since it is a key in facilitating the firms` efficient operations, the respondents stated inventory management affect financial performance of organizations since, if a firm has obsolete inventory these can lead to poor management forecast of demand and poor inventory management, poor control of inventory can lead to obsolete inventory which is a cost which has a negative effect on financial performance of a firm. The respondents further stated that sound and efficient inventory tracking system is capable of supporting an organization to maximize profits which affects the financial performance.

In regards to inventory management relationship with monetary performance among petroleum and energy businesses registered with NSE participants were required to indicate the extent of relationship on Likert measure of 1 to 5, in that: not sure was represented by 1; strongly disagree with 2; disagree with 3; agree with 4 and strongly disagree with 5. Survey outcomes are illustrated in Table 4.5.

**Table 4.5 Effect of Inventory Management on Financial Performance**

	N	Mean	Std. Deviation
	Statistic	Statistic	Statistic
The company calculates its inventory turnover to see if the company has an excessive inventory in comparison to its sales/consumption level	127	4.1496	.96015
The company puts more emphasis on customer retention and loyalty levels	127	4.2205	.84434
The company inventory is based on clear demand from customers	127	4.1732	.96851
The company pushes out products based on expected or forecasted demand	127	4.2283	.98552
Using a logical methodology the company is able to source, store and sell its components and products in the market place	127	4.2274	1.10140

**Source: Researcher (2022)**

As shown in Table 4.5, aspects in inventory management were considered by the respondents to have the most effect on monetary performance among petroleum and energy businesses registered at NSE were; company pushes out products based on expected or forecasted demand with a mean value of 4.2283 followed by using a logical methodology the company is able to source, store and sell its components and products in the market place with a mean value of 4.2274. Other inventory management aspects that had an effect on financial performance were; the company puts more emphasis on customer retention and loyalty levels, the company inventory is based on clear demand from customers and the company calculates its inventory turnover to see if the company has an excessive inventory in comparison to its sales/consumption level with a mean averages 4.2205, 4.1732 and 4.1496 correspondingly.

P-value method was applied in testing the zero hypotheses; indicating that managing inventory in a significant way does not have a relationship with monetary performance of petroleum businesses registered at NSE. Study results of t-test are as illustrated in Table 4.6 and 4.7.

**Table 4.6 One-Sample Statistics- Inventory management**

	N	Mean	Std. Deviation	Std. Error Mean
The effect of inventory management on financial performance	127	1.0945	.29367	.02606

**Table 4.7 One-Sample Test- Inventory management**

Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The effect of inventory management on financial performance	42.001	126	.000	1.09449	1.0429	1.1461

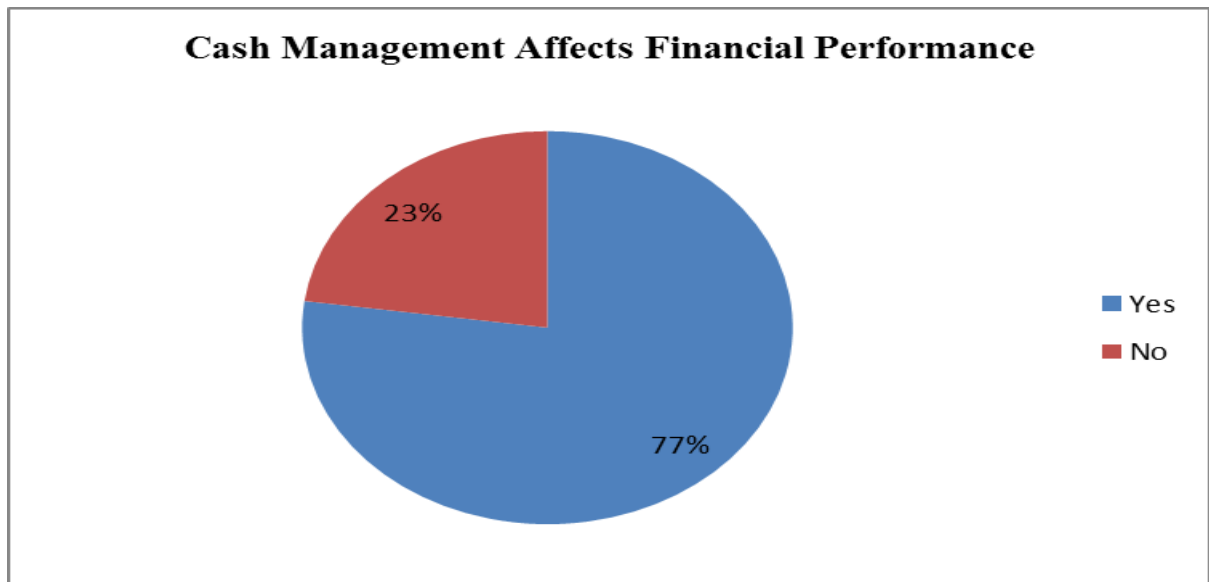
**Source: Researcher (2022)**

The study test finding in Table 4.6 and 4.7, the test statistic gotten was 42.001 with 0.000 as its P-value with an assurance interval of 95%. P-value was smaller than the acceptable level of the alpha ( $P \leq 0.05$ ); hence rejection of zero hypotheses and adopting of the alternative which is inventory management significantly affects monetary performance of petroleum and energy businesses registered at NSE. These findings support the study results of Njeru, Mbula and Memba (2016) who investigated how monetary success relates with the management of inventory among businesses in Kenya which the nation provided venture investment to. The population was 24 firms meeting this criterion. Questions were

utilized covering the study objectives. The investigation results show management of inventory and monetary success of these institutions was positive and significant.

#### **4.4.3 Effect of Cash Management on Financial Performance**

The third objective was ascertaining how managing of cash relates with monetary performance among energy and petroleum businesses listed at NSE. Research was interested in finding out from the respondents whether cash management affects financial performance. In the Figure 4.3 the study outcomes are described.



**Figure 4.4 Cash Management Affects Financial Performance**

Study outcomes are described in Figure 4.4, most participants 77% indicated that cash management affects financial performance while 23% of the respondents stated that cash management does not affect performance of finances.

Researcher pursued a clarification from respondents in relation to what ways cash management affects financial performance. The respondents argued that an organization management is responsible for holding cash and managing the same so as make viable decisions in a controlled way relating to investment that could influence the operations of an entity which will improve its financial performance. Many cash management techniques have an effect on cash inflows and outflows which are the central component of managing organization cash flows.

The respondents were further required to state the effects of managing cash on performance of finances. Some of the effects the respondents stated include; managing monies is a key element affecting financial performance since it ensures an organization's financial solvency and stability owing to the fact this is a process of collecting monies, managing it and identifying viable activities to invest in. It was established that managing cash affects performance of finances since if the strategies are right it ensures that organizations' surplus cash is invested wisely therefore improving on the available finances. The respondents stated the main objective that relates to managing of cash management is ensuring firms have health financial status to ultimately improve on financial performance of shareholders. This is achieved through making sure of availability of monies as and when needed owing to the fact that liquidity is the business entity lifeblood.

Respondents were asked about the impact of cash management on performance of finances of oil and energy companies registered in the NSE guided by a Likert scale of 1 to 5, where: not sure was represented by 1; strongly disagree with 2; disagree with 3; agree with 4 and strongly disagree with 5. In Table 4.8 the outcomes are described.

**Table 4.8 Effect of Cash Management on Financial Performance**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>
The company states explicitly the duration in days that it can convert its resources like inventory investments in ready cash arising from sale	127	4.2598	.90161
To grow and maintain its operations the company always ensures there is a generation of enough positive cash flow with requiring external financing for capital expansion	127	4.1417	.90610
The company delays payment of liabilities	127	4.2835	.81550
The company keeps inventory levels low	127	4.2283	1.00150
The company increases the speed of collection on receivables	127	4.2913	.85552

**Source: Researcher (2022)**

Table 4.8 illustrates outcomes as the respondents stated; company increases speed of collection on receivables as the aspect of cash management that affects performance of finances most with average value at 4.2913 followed by aspect stating that the company delays payment of liabilities with a mean value of 4.2835. Other aspects of cash management that were thought to affect financial performance include; the company states explicitly the duration in days that it can convert its resources like inventory investments in ready cash arising from sale; the company keeps inventory levels low and to grow and maintain its operations the company always ensures there is a generation of enough positive cash flow with requiring external financing for capital expansion at averages of 4.3598, 4.2283 and 4.1417 in that order based on Likert scale.

The p-value method was applied in testing the null hypothesis; that cash management effect on performance of finances among petroleum and energy businesses registered with NSE as not significant. The findings relating to the t-tests are set out in Tables 4.9 and 4.10.



**Table 4.9 One –sample statistics – Cash management**

	N	Mean	Std. Deviation	Std. Error Mean
The effect of cash management effect on financial performance	127	1.1969	.39919	.03542

**Table 4.10 One–sample Test- Cash management**

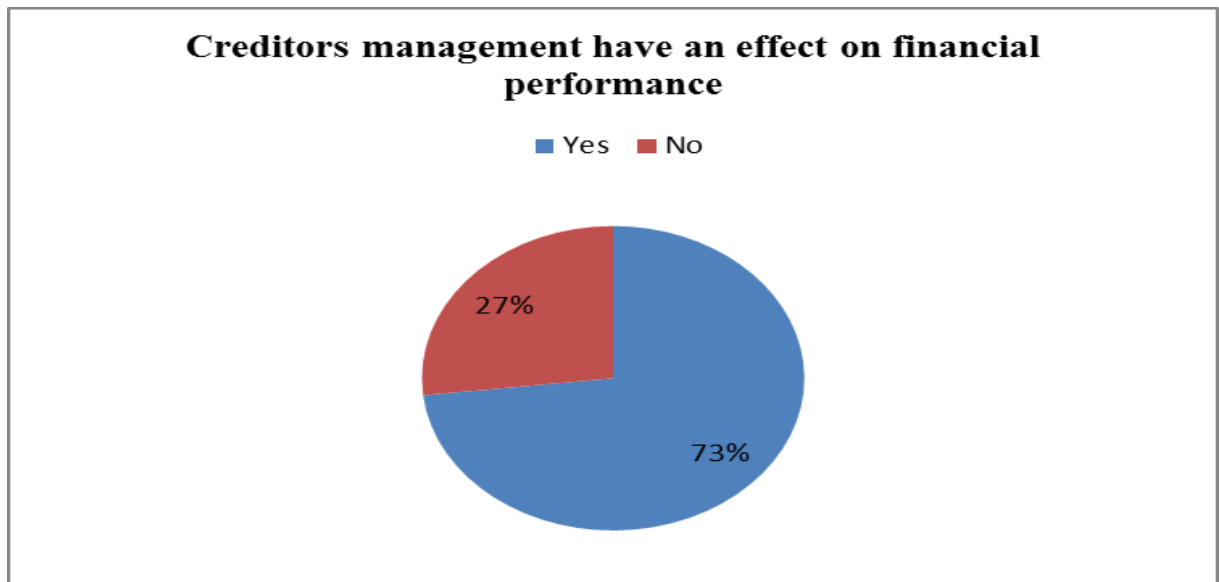
Test Value = 0						
				95% Confidence Interval of the Difference		
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
The effect of cash management effect on financial performance	33.788	126	.000	1.19685	1.1268	1.2670

**Source: Researcher (2022)**

As shown in study outcomes represented in Tables 4.9 and 4.10, the test statistic was 33.788 at interval of confidence of 95% with 0.000 as P-value. P-value was smaller than the known level of alpha at ( $P \leq 0.05$ ); hence rejection of zero hypotheses and adopts the alternative hypothesis cash management effect on performance of finances among petroleum and energy firm registered in NSE is significant. These findings agree with the results of Jajale (2017) who was interesting in finding out in what way managing of cash influence performance of finances among commercial banking institutions in Mogadishu, Somalia. The study population was all the 48 banking institutions operating in Mogadishu. Information for the study was collected using questions sent to the employees of these banks. The study results reveal that drivers of cash management affect in a significant but positive way financial performance of commercial banking institutions operating in Mogadishu in Somalia.

#### 4.4.4 Effect of Creditors Management on Financial Performance

Aim number four of the research was to assess how managing of creditors relates with performance of finances of energy and petroleum businesses listed at NSE. The study was interested in finding out whether creditor management had any effect on performance of finances. Indicated in Figure 4.4 are the results of the study.



**Figure 4.5 Creditors management have an effect on financial performance**

The results in Figure 4.5 indicate that most participants, 73%, said creditor management had an influence on performance of finances, compared with 27% of respondents.

The study sought a clarification from the respondents in relation to creditor management effect on financial performance. The respondents contended that having a sound credit management is a condition for an organization's financial stability and continuous profitability. The respondents argued that an organization with weakening quality relating to credit is seen as the greatest recurrent issue leading to deprived from performance of finances as well as situations. Respondents credit management is an important aspect of an organization financial performance since it reinforces a firm's liquidity, improves on cash flow and lowers the rate of late payments made. The respondents argued that having an effective credit risk control, the collection policy and client appraisal affect financial

performance of the organizations. Credit management strategies and methods are key for financial performance because if they are adopted by a firm they can ensure that a firm is able to meet credit levels that are optimum as well as operational management levels. Credit management positively affects financial performance because it involves credit rating, credit classification, credit reporting and credit analysis.

The study was interested on how creditors management relates with performance of finances. Some of the effects that the respondents stated include, a proper credit management will improve financial performance since capital locked in debts is lowered and a reduction of bad debt issues, effectively managing receivables affect financial performance since it involves designing and documenting a credit policy without this organizations faced with liquidity and inadequate working capital problems can arise from inappropriate credit policies and lax credit standards. The respondents argued that credit management affects financial performance since an effective credit policy is able to create a set of goals that are common which recognize departments of credit as well as collection as being a significant contributing factor on strategies by businesses for improving finances. Respondents stated that credit management affects financial performance since a good management of credit policy reduces the risk of bad as well as doubtful debts. At the same time, poor management of trade debt can result in provision of large sums of funds for bad and doubtful debts and losses.

Participants were required to answer questions on 1-5 scale about how accounts payable impacted their financial performance. Where; not sure was represented by 1; strongly disagree with 2; disagree with 3; agree with 4 and strongly disagree with 5. The survey results are shown in Table 4.11.

**Table 4.11 Effect of Creditors Management on Financial Performance**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>
Company has a higher creditors turnover	127	4.2441	.90603
The company considers the number of calls made to customers that are likely to result in a potential to pay (PTP) against the entire right party contacts (RPCs) that the collectors have made in the similar period	127	4.2677	.93816
The company has developed call scripts and revises them frequently to ensure a promise to pay is requested	127	4.2546	.87694
The company has implemented payment schedules to allow the debtor to make multiple payments over a time period	127	4.3780	.77592
The company informs past due customer of next steps if amount remains unpaid for example through collections letter and turning account over to collections agency	127	4.3307	.78735

**Source: Researcher (2022)**

The study outcomes indicated in the Table4.11, the aspect of creditors management that was thought had the most effect on financial management was that; with a mean value of 4.3307. other creditors management issues that had an influence on performance of finances shown by Likert scale questions include; the company considers the number of calls made to customers that are likely to result in a potential to pay (PTP) against the entire right party contacts (RPCs) that the collectors have made in the similar period with a mean value of 4.2677, the company has developed call scripts and revises them frequently to ensure a promise to pay is requested with a value of 4.2546 and the company has a higher creditors turnover by mean averages at 4.2441.

P-value method applied in testing the zero hypotheses, managing creditors does not in any way that is significant influence financial performance of energy and petroleum businesses listed in NSE. Findings on t-tests are illustrated in Tables 4.12 and 4.13.

**Table 4.12 One-Sample Statistics –Creditors management**

	N	Mean	Std. Deviation	Std. Error Mean
The effect of creditors management on financial performance	127	1.1575	.36570	.03245

**Table 4.13 One-Sample Test- Creditors management**

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The effect of creditors management on financial performance	35.669	126	.000	1.15748	1.0933	1.2217

**Source: Researcher (2022)**

Centered on test outcomes in Tables 4.12 and 4.13, test statistic was 35.669 with P-value 0.000 with a 95% assurance interval. P-value was smaller than the level of alpha ( $P \leq 0.05$ ). Consequently, a rejection of zero hypotheses and acceptance of the alternative which is creditor management significantly influences the performance of finances at NSE-registered energy and Oil Company. These research results corroborates with those of a study on how financial performance is affected by WCM done by Yahaya (2016) in Nigeria among firms in the pharmaceutical industry. The study period was 2006 to 2013 covering 8 years. Collection of information was by use of sources that were secondary. Information from audited yearly publications of finance in eight years reviewed and bulletins sought from Nigeria Stock Exchange. The study results revealed that financial performance and

average payment period of pharmaceutical companies in Nigeria have a positive and substantial relationship.

#### **4.5 Diagnostic Results**

To evaluate samples randomly selected among observations that are independent three procedures come in handy especially on normally distributed populace are the graphical methods (graphs, box plots, and quantitative histograms), numerical methods (deviation index and kurtosis) and formal tests of normality. Formal tests for this include; Liliefors, Anderson-Darling, Shapiro-Wilk and Kolmogorov-Smirnov. Having small samples these four tests face a challenge. The research employed two tests namely Shapiro-Wilk and Kolmogorov-Smirnov in checking the nature of information collected from the normal populace. In testing normality among small sample more so those that are 50 and below studies perform Shapiro-Wilk with a p-value of more than 0.05 showing normality of the information while less than p-value of 0.05, information deviation is significant in a distribution that is normal. Table 4.14 illustrates the outcomes of Shapiro-Wilk and Kolmogorov tests performed.

Outcomes in Table 4.14 indicate performance of finances, managing of cash, inventory, receivables and payables. A confirmation of this is held by Wells and Smith (2006) who were of the opinion that majority of variables in particular those in social sciences in most instances are not distributed normally. As the sizes of sample were increased, averages get a normal distribution in relation to these distributions which make the testing of hypotheses a challenge to normality violations as highlighted by the theorem of central limit. Any sample size more than 30 is seen to be a large sample. Wuensch (2016) argues, values of kurtosis as well as skewness below 1 are considered normal notwithstanding the fact that Shapiro-Wilk is smaller than 0.05. In this study it was assumed there was normality since the kurtosis and skewness values in absolute nature were below 1.

**Table 4.14 Outcomes of Kolmogorov-Smirnov and Shapiro-Wilk Tests**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Financial Performance	.539	126	.000	.248	126	.000
Debtors Management	.539	126	.000	.248	126	.000
Inventory Management	.540	126	.000	.221	126	.000
Cash Management	.540	126	.000	.221	126	.000
Creditors Management	.540	126	.000	.191	126	.000

The variables were subjected to diagnostic tests and more specifically multicollinearity tests. According to Hill (2015) multicollinearity allows for any single variable on a model of multiple regressions to predict in a linear way with some accurate degree which is significant. Multicollinearity was considered in this study since it does not in any way lower the reliability or predictive power of a model entirely, but within information sample set but simply influences calculations on distinct variable or forecasters. Small changes on the data or model can however erratically lead to a response in the coefficient estimations of the multiple regressions. This shows that one predictor variable can be used to forecast the other. The threshold beyond which the problems might occur is a value of 0.9.

Multicollinearity is taken into account at degrees of cross-correlation between independent variables. This is unacceptably high and the effects of these independent variables cannot be isolated. With multicollinearity, the approximations are impartial, nonetheless estimates of the absolute strengths among variables of explanatory nature with their combined effects are undependable, a cross-correlation between independent variables greater than 0.30 indicates a potential problem. As in Table 4.14 correlations in the survey show wholly values associated with the association figures in this study are below the value of 0.8. This

is the threshold for lack of multicollinearity between study variables. Similarly, the bivariate correlation statistic for the independent variables range from a least of 0.045 to extreme at 0.188.

Bivariate correlation between cash management and debtors management was  $r=-0.05$  which indicates that there relationship exists but is negatively weak among the lower variables. Equally, bi-variate association between cash management and creditors management was  $r=0.19$  implying a relationship which was weak but positive. As advanced by Creswell (2013) values of correlation among variables considered predictor lie below the least threshold of 0.8 thus depicting a little or no presence of multicollinearity between study measures under review.

**Table 4.15 Correlations of Variables**

	Financial Performance	Debtors Management	Inventory Management	Cash Management	Creditors Management
Financial Performance	1				
Debtors Management	0.12*	1			
Inventory Management	0.56**	0.14	1		
Cash Management	-0.5**	-0.05	-0.05	1	
Creditors Management	0.64**	0.14	-0.05	0.19	1

\*\*Correlation significant at 0.01 level (2 tailed)

\*Correlation significant at 0.05 level (2 tailed)

The collinearity statistics are shown in Table 4.16



**Table 4.16 Collinearity Statistics**

	Tolerance	VIF
Debtors Management	0.94	1.06
Inventory Management	0.96	1.05
Cash Management	0.94	1.07
Creditors Management	0.96	1.04

a. Dependent Variable: Financial Performance

Multicollinearity tests were performed for the variables reviewed through Variance Inflation coefficients (VIF) as well as tests of tolerance for analysis in regression, as shown in Table 4.16. Variance Inflation Factor (VIF) range values are 1.04 to 1.07, which is less than the considered threshold at 10. Tolerance ranged from 0.94 to 0.96, exceeded the 0.1 threshold, implying the absence of multicollinearity.

#### **4.6 Establishing the relationship between Working Capital Management on Financial Performance**

Empirical model was established using multivariate analysis to ascertain the association between the WCM and performance of finances among petroleum and energy businesses registered in NSE. The degree and direction of the association of the variables was explained through regression coefficients generated through Version 21.0 of SPSS. Presentation of outcomes is as shown in Table 4.17.

**Table 4.17 Model Summary**

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics						
				R Square	Change in R Square	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.945 <sup>a</sup>	.893	.28218	.888	.893	201.424	5	121	.000	.314

a. Predictors: (Constant), Debtors Management, Inventory Management, Cash Management, Creditors Management

b. Dependent Variable: Financial performance

**Source: Researcher (2022)**

As shown in Table 4.17, study outcomes show a multiple determination coefficient (R<sup>2</sup>) of 0.893, which indicates line of regression being an acceptable fit and explains up to 89.3% of variability in financial performance indicates that there is A p-value of 0.000 showing the association of WCM and performance of finances is statistically substantial at the 5% confidence level.

Combined effects of independent elements looked at in this study Analysis of Variance (ANOVA) was applied. The study outcomes are presented in Table 4.18.

**Table 4.18 ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.192	5	16.038	201.424	.000 <sup>a</sup>
	Residual	9.635	121	.080		
	Total	89.827	126			

a. Predictors: (Constant), Debtors Management, Inventory Management, Cash Management, Creditors Management

b. Dependent Variable: Financial Performance

Results of the study are displayed in Table 4.18; the static F value was 201,424 and the p-value was 0.000. This suggests that the p-value was less than the alpha value, meaning that

there was a difference between the means of the two groups. Therefore, the results of this study provided evidence to suggest that WCM practices influence organizational performance, as measured by financial outcomes

**Table 4.19 Regression model Coefficients**

Model	Unstandardized		Standardized	t	Sig.	95.0% Confidence	
	Coefficients		Coefficients			Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	.313	.165		1.891	.001	.015	.640
Debtors Management	.602	.155	.691	3.889	.000	.908	.295
Inventory Management	.613	.112	.715	5.461	.000	.391	.835
Cash Management	.846	.147	.878	5.739	.000	.554	1.138
Creditors Management	.189	.316	.174	.598	.001	.816	.437

a. Dependent Variable: Financial Performance

**Source: Researcher (2022)**

The study equation of  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$  was on the basis of Table 4.19 coefficients model which became,

$$Y = 0.313 + 0.602X_1 + 0.613X_2 + 0.846X_3 + 0.189X_4$$

With respect to the line of regression established seen above; holding entirely independent variables constant, financial performance among NSE registered oil and energy businesses is 0.313. Results of this study show keeping all other variables constant, 0.602 upsurges in accounts receivable rises financial performance of NSE-listed energy and oil companies. The results also reveal that the beta value was 0.602. This means that an increase in the cost of debt by 1% would lead to a decrease in ROA by 0.602%. Based on the regression line keeping entire variables constant, a 0.613 upsurge in stock control increases the

performance finances of NSE-listed oil and energy businesses. Same time, setting all other variables to zero, a 0.846 increase in cash management improves the financial performance among petroleum and energy businesses at NSE. On the other hand, results suggest keeping entire predictors constant, 0.189 surge in accounts payable improves the financial performance of NSE-listed energy and oil companies.

As Table 4.15 shows, survey outcomes on p-values for all predictors are  $<0.05\%$  (below the alpha level of 0.05), indicating that WCM The impact of NSE firms is statistically significant with a 95% confidence interval.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This section highlights the brief of the study and the conclusion. This part covers what the study recommends and suggestion guiding further investigation in relation WCM and monetary performance of petroleum and energy businesses registered in NSE.

#### **5.2 Summary of the Study**

An essential component in financial management in organizations revolves around WCM. Too high trade-off between assets and liabilities in the current form may tie up necessary funds in non-productive inventories and accounts receivables, whilst too low working capital may delay process of production and business loss as a result of shortages of products and as a result a company's liquidity position may suffer. Therefore, a favourable balance in relating to current liabilities and assets is critical in ensuring operations of a business are smooth. WCM seeks to come up with a level of trade-off between a company's current liabilities and assets that ensures wherever financial obligations fall due they are paid. Having an effective trade-off between assets and liabilities in the current form helps a firm escape falling into financial difficulties. In order to determine a capital structure that is suitable for a firm, financial performance factor is critical.

The specific objectives of this study was to determine how the financial performance of NSE-listed energy and oil firms is impacted by the management of accounts receivable, inventory, cash, and payables.

Was achieved through use descriptive study designs principally cross-sectional surveys. Primary data collected for the study were collected through questionnaires supplemented with data abstraction tools. We analyzed the collected quantitative data using descriptive and statistics of inference. Statistics of inference included multiple regression analysis and correlation analysis.

Objective one for the study was to investigate how debtors management relate with financial performance of energy and petroleum businesses registered at NSE. Alternative hypothesis stood adopted with the rejection of null hypothesis meaning managing debtors affect monetary performance among petroleum and energy businesses registered at NSE significantly. This was true because for comparison purposes the company relates its debtors turnover ratio with those of firms that are in similar industry with same revenue levels and that the company compares the amount that was collected in a given time period to the amount of receivables that were available for collection.

The second aim was to evaluate managing inventory relates with monetary financial of energy and petroleum businesses registered at NSE. Inventory management significantly affects monetary performance among petroleum and energy businesses registered at NSE thus a rejection of null hypothesis and adoption of alternative hypothesis. This would have resulted from the company pushing out products based on expected or forecasted demand and the company using a logical methodology the company is able to source, store and sell its components and products in the market place.

Thirdly the study aimed at ascertaining the effect of managing cash on monetary performance of energy and petroleum businesses registered at NSE. Alternative hypothesis was adopted with the rejection of null hypothesis meaning cash management significantly relates with monetary performance of petroleum and energy businesses registered at NSE. The findings indicate that this was as a result of the fact that the company increases the speed of collection on receivables as the aspect of cash management that affects financial performance and that the company delays payment of liabilities.

The fourth aim was to assess how managing creditors associates with monetary performance among energy and petroleum businesses listed at NSE. Since creditors management had a noteworthy effect on monetary performance among petroleum and energy firms registered at NSE a rejection of null hypothesis stood with the adoption of alternative hypothesis. Study outcomes indicate this is true because the companies has implemented payment schedules to allow the debtor to make multiple payments over a time

period and that the companies inform past due customer of next steps if amount remains unpaid for example through collections letter and turning account over to collections agency.

### **5.3 Conclusion of the study**

It was concluded that influence of debtor management on monetary performance of NSE-registered energy and oil businesses was significant. Create financial leverage. This allows you to increase the return on your investment if the return earned exceeds the cost. Since paid interest on dues are easily written off as an expense. Strong and sophisticated debt tracking procedures for delinquencies, well-established legal aspects of lending to customers, competence and integrity of staff in adhering to collection policies, development, implementation and regular review of collection policies are critical.

The findings revealed that inventory management significantly affects monetary performance among petroleum and energy businesses registered at NSE. This is to say that in organizations, the management of inventory is not only a delicate issue but a difficult task, inventory of all kinds represents an important component of a firm capital thus failure or accomplishment for enterprises hinge largely how inventory management has performed. Inventory management not only increases a company's profitability but also can help in organization in solving their liquidity problem and inventory management plays a key role in determining organizations' financial positions.

The study found out that cash management has a relation with monetary performance of petroleum and energy businesses registered in NSE significantly thus an organization management is responsible for holding cash and managing the same so as to be in charge on decision making relating to investment that influence the operations of an entity which will improve its financial performance. Many cash management techniques have an effect on cash inflows and outflows which are the central component of managing organization cash flows. Cash management is a key element affecting financial performance since it ensures an organization's financial solvency and stability owing to the fact this is a

procedure that involves collection of monies, watching on money and soliciting projects of investment.

The study results show that creditors management significantly affect monetary performance among petroleum and energy businesses listed at NSE, consequently having sound credit management is a condition for an organization`s financial stability and continuous profitability, an organization with deteriorating credit facility system seen as the greatest recurrent reason of reduced financial performance and circumstance and that managing credit is an important aspect of an organization financial performance since it reinforces a firm`s liquidity, improves on cash flow and lowers the rate of late payments made.

#### **5.4 Recommendations of the Study**

Recommendations from the study include; organizations must ensure debtors management systems are effective since this affects financial performance. This is necessary since it will ensure that the firm receives the full amounts of money owed on time, helps organizations to come up with various payment options, allows organizations to forecast the performance of the business and be able to identify the potential cash flow issues well ahead of time before they happen. It also allows organizations to adjust their payment plans.

This study recommends that organizations without having in place a system that is effective in managing inventory by the firm can lead to much products being stocked that are not needed which will not only erode cash flow but it risks holding dead stock which can be obsolete, if an organization is able to have a higher turnover of inventory and there will be a higher suppression of costs leading to improved financial performance. Firms need to carefully plan on their inventory levels since if a firm has obsolete inventory these can lead to poor management forecast of demand and poor inventory management, poor control of inventory can lead to obsolete inventory which is a cost which harmfully impacts on financial performance of a firm. Sound as well as efficient inventory tracking system is capable of supporting an organization to maximize profits which affects the financial performance.



Further, organizations must have clear managing of cash guideline owing to the fact managing monies is considered a significant element affecting financial performance since it ensures an organization's financial solvency and stability owing to the fact this is a money collection procedure, checking of monies and seeking investment projects. This is achieved through making money available as at when required owing to the fact that liquidity is the business entity lifeblood.

The study recommends a proper credit management system which will improve financial performance since it reduces monies that are under-utilized indebts as well as reduce likelihood of bad debts and this should involve designing and documenting a credit policy without which organizations will be faced with liquidity and inadequate working capital problems arising from inappropriate credit policies and lax credit standards.

### **5.5 Areas for Further Research**

Comparable studies are suggested for example on other organizations in Kenya that are not listed in this industry, as this study was only applied to listed energy and oil companies to compare results. Studies focusing on other sectors should also be considered for purposes of comparing studies. Lastly, the study found 89.3% of the variability in the monetary performance of NSE-registered energy as well as oil companies is described by volatility of WCM practices thus managing receivables, inventory, cash management and payables. Accounting for the remaining variance is therefore essential in finding out what other elements have an effect through further investigations.

## REFERENCES

- Adamu, Y. (2016). Effects of working capital management on the performance of pharmaceutical firms in Nigeria. *Journal of accounting; financial and auditing studies; 4 to 66.*
- Adesuyi, I. D., Nwekpa, K. C., & Bassey, J. U. (2017). Enhancing Economic Performance of Nigerian Manufacturing Firms Using Quantity-Reorder Point Inventory Control System. *IOSR Journal of Business and Management, 19(06), 35-44*
- Afrifa, G., & Tingbani, I. (2018) 'Working capital management , cash flow and SMEs ' performance', *Int. J. Banking, Accounting and Finance, 9(1).*
- Altaf, N., & Farooq, A. (2019). Working capital financing, firm performance and financial constraints. *International Journal of Managerial Finance, 15(4), 464–477.*
- Altaf, N., & Shah, F. (2017). Working capital management, firm performance and financial constraints: Empirical evidence from India, *Asia-Pacific Journal of Business Administration, 9 (3), pp. 206-219.*
- Altawalbeh, M. (2020). Corporate Governance Mechanisms and Firm's Performance – Evidence from Jordan. *Accounting and Finance Research, 9 (2), 11-22.*
- Amr A. M. (2019). Determinants of working capital behavior: evidence from Egypt. *International Journal of Managerial Finance, 15(1), 39–61.*
- Arai, Y. (2016). "Testing For Linearity In Regressions With I(1) Processes," *Hitotsubashi Journal of Economics, Hitotsubashi University, 57(1), 111-138.*
- Atnafu, D., Balda, A. and Liu, S. (2018). The impact of inventory management practice on firms' competitiveness and organizational performance: Empirical evidence from micro and small enterprises in Ethiopia. *Cogent Business & Management, 5(1), 1-16.*
- Baños-Caballero, S., García-Teruel, P. J., & Martínez-Solano, P. (2019). Net operating working capital and firm value: A cross-country analysis. *BRQ Business Research Quarterly.*
- Bates, T. W., Chang, C.H., & Chi, J. D. (2018). Why has the value of cash increased over time? *Journal of Financial and Quantitative Analysis, 53(2), 749–787.*
- Boopathi, C., & Leeson, J. (2016). Concept of Working Capital Management. *International Journal of Commerce, Business and Management 2319–2828.*
- Cooper, D. R., & Schindler, P. S. (2014) *Business Research Methods.* 12th Edition, McGraw Hill International Edition, New York.

- Das, K. R., & Imon, A.H.M.R. (2016). A Brief Review of Tests for Normality. *American Journal of Theoretical and Applied Statistics*, 5(1), 5-12.
- Daoud, J. I. (2017). Multicollinearity and Regression Analysis. *Journal of Physics: Conf. Series* 949
- Field, A. (2017). *Discovering Statistics Using IBM SPSS Statistics* (5<sup>th</sup> ed). University of Sussex, UK
- Financial Executives International Canada, 2020
- Frankfurt Business Media, 2019
- Garanina, T., & Petrova, O. (2015). Liquidity, cash conversion cycle and financial performance: case of Russian companies. *Investment Management and Financial Innovations*, 12(1), 90-100.
- García-Teruel, P. J., & Martínez-Solano, P. (2016). Financing of working capital requirement, financial flexibility and SME performance. *Journal of Business Economics and Management*, 17(6), 1189–1204.
- Hassan, O.H, Hellen., K.M & Willy, M (2017). Effect of Working Capital Management on Firm' Financial Performance: A Survey of Water Processing Firms in Puntland. *Journal of Economics and Sustainable Development* Vol.8, No.2.
- Hau, L. L. (2017). Free Cash Flow and Firm Performance: Evidence From Sectoral Levels for Vietnamese Listed Firms. *Journal of Advanced Engineering, Management and Science*, 3(4), 296-300
- Ikechukwu, O. I., & Nwakaego, D. A. (2016). Cash Conversion Cycle Management on the Financial Performance of Building Materials/Chemical and Paint Manufacturing Companies in Nigeria. *IOSR Journal of Humanities and Social Science*, 21(7),62-69
- Jajale, A. A. (2017) Effect of Cash Management on the Financial Performance of Commercial Banks in Mogadishu, Somalia. *IJRDO - Journal of Business Management (ISSN: 2455-6661)*, 3(8), 52-76.
- Kanyugi, M. G. (2016). *The Effects of Financial Distress on the Value of Firms Listed at the Nairobi Securities Exchange*. Master of Business Administration Research Project, University of Nairobi, Kenya.
- Kasozi, J. (2017). The effect of working capital management on profitability: a case of listed manufacturing firms in South Africa. *Investment Management and Financial Innovations*, 14(2), 336-346.

- Khan, A. A., Ayaz, M., Waseem, R. M., Osama, H. A.S., & Ijaz, A. (2016). Impact of Training and Development of Employees on Employee Performance through Job Satisfaction: A Study of Telecom Sector of Pakistan. *Business Management and Strategy* 7(1):29
- Khan, J. A., Deng, S., & Khan, M. H. (2016). An Empirical Analysis of Inventory Turnover Performance Within a Local Chinese Supermarket. *European Scientific Journal, ESJ*, 12(34), 145.
- Kimotho, D. N., & Gekara, M. (2016). Effects of Credit Risk Management Practices on financial performance of Commercial banks in Kenya. *International journal of economics & finance*, 2( 3),116-189.
- Kipkemboi, P., Kiru, K., & Koima, K. J. (2018). Effect of Inventory and Cash Conversion Cycles on Financial Performance of Listed Commercial and Service Firms in Nairobi Securities Exchange Kenya. *Scholars Journal of Economics, Business and Management (SJEEM)*
- Kothari, C.R. (2019) *Research Methodology Methods and Techniques*. 4th Edition, New Age International Publishers, New Delhi.
- Kombo, J. A., & Wekesa, M. (2017). Effects of Working Capital Management on Financial Performance of Private Medical Facilities in Mombasa County. *The Strategic Business and Change Journal of Management* 4(10), 169-188.
- Knapp, R. J. (2017). Significance Test, Confidence Interval, Both or Neither? *Clinical Nursing Research*. 26(3) 259–265
- Kumaraswamy, S. (2016). Impact of Working Capital on Financial Performance of Gulf Cooperation Council Firms. *International Journal of Economics and Financial Issues* 6(3), 1136-1143.
- Langtertaa, K (2019). *The Effects of Working Capital Management on Financial Performance of Selected SME's In the Manufacturing Sector of Ghana*. Unpublished Research University of Ghana.
- Lyani, M. N. (2017). *Relationship between Accounts Receivable Management Practices and Growth of Small and Medium Enterprises in Kakamega County, Kenya* (Doctoral dissertation, COHRED-JKUAT).
- Lyngstadaas, H., & Berg, T. (2016). Working capital management: Evidence from Norway. *International Journal of Managerial Finance*, 12(3), 295–313.
- Madugba, J. U., & Ogbonnaya, A. K. (2016). Working Capital Management and Financial Performance: Evidence From Manufacturing Companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 4, 98-106.

- Martínez-Sola, C., García-Teruel, P., & Martínez-Solano, P. (2018). Cash holdings in SMEs: Speed of adjustment, growth and financing. *An Entrepreneurship Journal*, 51(4), 823–842.
- Maurizio La, R. (2019). The effect of cash holdings on firm performance in large Italian companies. *Journal of International Financial Management & Accounting*, 30(1), 30–59.
- Mbula, K. J., Memba, S. F., & Njeru, A. (2016). Effect of accounts receivable on the financial performance of firms funded by Government Venture Capital in Kenya. *IOSR Journal of Economics and Finance*, 7(1), 62-69.
- Mielcarz, P., Osichuk, D., & Behr, A. (2018). The Influence of capital expenditures on working capital management in the corporate sector of an emerging economy: The role of financing constraints, *Economic Research-Ekonomska Istrazivanja*, 31:1, 946-966.
- Mohamad, N. E. A. B (2018). Working capital management: The effect of market valuation and profitability in Malaysia. *International Journal of Business and Management*, 5(11), 140-147.
- Mugo, K. (2016). *Effects of trade receivables management on the profitability of manufacturing firms listed in the Nairobi Securities Exchange* (Unpublished MBA Project). University of Nairobi, Nairobi, Kenya.
- Muigai, R. G. (2016). Equity Structure Effect on Financial Soundness of Non-Financial Companies Listed in Kenya. *International Journal of Business and Social Science*, 7(5).
- Munene, F., & Tibbs C. Y. (2018). Accounts Receivable Management and Financial Performance of Embu Water and Sanitation Company Limited, Embu County, Kenya. *International Academic Journal of Economics and Finance*, 3(2), 216-240.
- Muriithi, J. G., & Waweru, K. M. (2017). Liquidity Risk and Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Finance*, 9(3), 256-265.
- Mutesi, A., & Mulyungi, P. (2018). Effect of Cash Management on the Financial Performance of Cooperative Banks in Rwanda: A Case of Zigma CSS. *Invention Journal of Research Technology in Engineering & Management (IJRTEM)*, 2(5), 88-98.
- Mwangi, L. (2016). *The Effect of Inventory Management on Firm Profitability and Operating Cash Flows of Kenya Breweries Limited, Beer Distribution Firms in Nairobi County* (Doctoral dissertation, School of Business, University of Nairobi).

- Mwaura, C. N. (2017). *The Effect of Inventory Turnover on the Financial Performance of Medium And Large Retail Supermarkets In Kenya*. Doctoral Dissertation, School Of Business, University Of Nairobi.
- Nason, R. S., & Patel, P. C. (2016). Is cash king? Market performance and cash during a recession. *Journal of Business Research*, 69(10), 4242–4248.
- Ndirangu, L.W. (2017). *Effects of Cash Management on the Financial Performance of the Companies Listed At the Nairobi Securities Exchange*. Nairobi: Nairobi University.
- Njeru, D. M. (2016). *Effect of Liquidity Management on financial performance of Deposit Taking Saving and credit co-operative society in Kenya*. (Doctoral dissertation, Business Administration (Finance), JKUAT).
- Ondimu, J. O., Rotich, G., & Kipkirui, P. Effect of inventory management on financial performance of listed manufacturing firms in Kenya. *The strategic journal of business and change management*. 5(2), 1-12.
- Onwuegbuzie, A. J., & Leech, N. L. (2017). Linking Research Questions to Mixed Methods Data Analysis Procedures 1. *The Qualitative Report*, 11(3), 474-498.
- Otieno, S., Nyagol, M., & Onditi, A. (2016). Relationship between Credit risk management and financial performance: empirical evidence from microfinance banks in Kenya. *Research Journal of finance and Accounting*, 7(6).
- Pyrczak, F., & Tcherni-Buzzeo, M. (2018). *Evaluating Research in Academic Journals: A Practical Guide to Realistic Evaluation* 7<sup>th</sup> Edition, Routledge, New York
- Ramazani, M., Salehi, M., & Laridashtbayaz, M. (2018). Relationship between cash flow management and financial performance of companies listed on the Tehran Stock Exchange. *Proceedings of the Faculty of Economics in East Sarajevo*, 1(17), 27–37.
- Saunders, M., Lewis, P. & Thornhill, A. (2016). *Research methods for business students* (7<sup>th</sup> ed.). Harlow, UK: Pearson Education.
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach*. 7<sup>th</sup> Edition, Wiley & Sons, West Sussex.
- Talonpoika, A.-M., Kärri, T., Pirttilä, M., & Monto, S. (2016). Defined strategies for financial working capital management. *International Journal of Managerial Finance*, 12(3), 277–294.
- Thevaruban, S. (2016). Impact of cash management on financial performance of the srilankan manufacturing companies. *International Journal of Economics and Business Review*, 4(8), 118–126.

- Tingbani, I. (2020). Working Capital Management and Financial Performance of UK Listed Firms: A Contingency Approach. *International Journal of Banking, Accounting and Finance*, 7 (4), 1-39.
- Wangige, G. J. (2016). *Effect of Firm Characteristics on Financial Distress of Non-financial Firms Listed at NSE, Kenya*. Unpublished MBA Thesis, School of Business, Kenyatta University, Kenya.
- Wanyonyi, K. & Jagongo, A. (2016). An Investigation of the Relationship between Working Capital Management and Profitability for Energy and Petroleum firms in Kenya. *International Journal of Current Business and Social Sciences*, 1 (5), 37-67.
- Wiedermann, W., Artner, R., & von Eye, A. (2017). Heteroscedasticity as a basis of direction dependence in reversible linear regression models. *Multivariate Behavioral Research*, 52(2), 222–241.
- Widyastuti, M., Oetomo, H. W., Riduwan, A. (2017). Working Capital and Macroeconomic Variables as Value Creation in Indonesian Textile Companies. *International Journal of Business and Finance Management Research* ISSN 20153-1842.
- Yahaya, A. (2016). Effects of Working Capital Management on Financial Performance of the Pharmaceutical Firms in Nigeria. *International Journal of Economics, Commerce and Management*. United Kingdom 4(4).
- Yang, A. S., & Pangastuti, A. (2016). Stock market efficiency and liquidity: The Indonesia Stock Exchange merger, *Research in International Business and Finance*, Elsevier, 36(C), 28-40.
- Yin, R. K. (2017). *Case Study Research and Applications: Design and Methods*. SAGE Publications, New York.
- Zalaghi, H., & Godini, M. (2019). The moderating role of firms characteristics on the relationship between working capital management and financial performance. *Advances in Mathematical Finance and Applications*, 4(1), 71-88.
- Zeidan, R., & Shapir, O. M. (2017). Cash conversion cycle and value-enhancing operations: Theory and evidence for a free lunch. *Journal of Corporate Finance*, 45, 203–219.
- García-Alcaraz, Jorge & Maldonado, Aide & Jiménez, Emilio & Blanco, Julio. (2018). THE IMPACT OF PROCUREMENT AND INVENTORY MANAGEMENT IN OPERATIVE PERFORMANCE IN A SUPPLY CHAIN.
- Rahman, Md. (2020). Credit Management Practices of Rupali Bank Limited (A study on Chawk Bazar Branch, Chattogram).. 10.13140/RG.2.2.14756.40324.

- Waithaka, Isaac & Humphrey, Wanjiru & Mbaka, Charity. (2021). Prerequisites for Enhancing Local Content in the Energy Sector in Kenya. KIPPRA Discussion Paper No. 242.
- Busuulwa, Bernard (2022). Umeme Limited posts \$29m profit for first half of 2022. The East African. <https://www.theeastafrican.co.ke/tea/business/umeme-limited-results-3926896>
- Katehakis, Michael & Melamed, Benjamin & Shi, Jim. (2016). Cash-Flow Based Dynamic Inventory Management. Production and Operations Management. 25. 10.1111/poms.12571.
- Kenya, P., & Lighting, C. (2020). Annual report and financial statements. Financial Year Ended 30th June 2020. Kenya Power and Lighting Company limited, Nairobi, Kenya.
- Munene, Martin & Odongo, Janes & Nyambane, Anne. (2019). ENERGY EFFICIENCY IN KENYA PUBLIC AWARENESS, STRATEGIES, CHALLENGES AND OPPORTUNITIES.
- Abeywardhana, D. K. . Y. (2017). Capital Structure Theory: An Overview. Accounting and Finance Research, 6(1), 133–138. <https://doi.org/10.5430/afr.v6n1p133>



## APPENDICES

### APPENDIX I: LETTER TO THE RESPONDENTS

Tobias Chacha Olambo

D53/CTY/PT/26934/2019

School of Business

Kenyatta University

NAIROBI-KENYA

#### **RE: RESEARCH DATA**

I am a student at Kenyatta University in the post graduate program school of business carrying out my research on “**WORKING CAPITAL MANAGEMENT AND FINANCIAL PERFORMANCE OF ENERGY AND PETROLEUM FIRMS LISTED AT NAIROBI SECURITIES EXCHANGE**”, which is a requirement for the completion of the program. For purposes of this research project please spare about 10 minutes to provide answers to the questionnaire.

Thanks

Yours faithfully,

Tobias Chacha Olambo

D53/CTY/PT/26934/2019

**APPENDIX II: QUESTIONNAIRE**

Please spare about 10 minutes to provide honest answers to the questions below. This is an academic exercise and any answers given shall be confidential.

**SECTION A: GENERAL INFORMATION**

1. What is the average company profitability?

.....  
.....  
.....

2. What is the average company earnings?

.....  
.....  
.....

3. What is the overall performance trend for the last 5 years?

.....  
.....  
.....

4. What is the average monthly outstanding debt?

.....  
.....  
.....

6. Do you think the changes in WCM would affect financial performance of companies among petroleum and energy institutions registered at NSE?

Yes ( ) No ( )

**SECTION B: WORKING CAPITAL MANAGEMENT**

**1. DEBTORS MANAGEMENT**

In the questions relating to debtors management given below please spare some time to provide answers. Please fill or tick your answers in the provided spaces.

a) Do you think debtors management affects financial performance? (Mark)

Yes ( )      No ( )

b) Give a clarification

.....  
 .....  
 .....  
 .....

c) State the effects of debtors management on financial performance?

.....  
 .....  
 .....  
 .....

d) Using a measure of 1-5 indicated below; what is extent you agree/disagree that debtors management affects financial performance?

<b>SCALE</b>	<b>1) Not sure</b>	<b>2) Strongly Disagree</b>	<b>3) Disagree</b>	<b>4) Agree</b>	<b>5) Strongly agree</b>
--------------	------------------------	---------------------------------	--------------------	-----------------	------------------------------

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
For comparison purposes the company relates its debtors turnover ratio with those of firms that are in similar industry with same revenue levels					
The company compares the amount that was collected in a given time period to the amount of receivables that were available for collection					

The company revises credit collections by changing the credit terms a business offers					
The company increases collection efficiency by making it easy for customers to pay on time					
The company rewards efficiency payments by giving customers an incentive to pay their bills early					

**2. INVENTORY MANAGEMENT**

In the questions relating to inventory management given below please spare some time to provide answers. Please fill or tick your answers in the provided spaces.

a) Does inventory management affect financial performance? (Mark)

Yes ( )      No ( )

b) Give a clarification

.....  
.....  
.....  
.....

c) State the effects of inventory management on financial performance?

.....  
.....  
.....  
.....  
.....

d) Using a measure of 1-5 indicated below; what is extent you agree/disagree that inventory management affects financial performance?

<b>SCALE</b>	<b>1) Not sure</b>	<b>2) Strongly Disagree</b>	<b>3) Disagree</b>	<b>4) Agree</b>	<b>5) Strongly agree</b>
--------------	------------------------	---------------------------------	--------------------	-----------------	------------------------------

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The company calculates its inventory turnover to see if the company has an excessive inventory in comparison to its sales/consumption level					
The company puts more emphasis on customer retention and loyalty levels					
The company inventory is based on clear demand from customers					
The company pushes out products based on expected or forecasted demand					
Using a logical methodology the company is able to source, store and sell its components and products in the market place					

### 3. CASH MANAGEMENT

In the questions relating to cash management given below please spare some time to provide answers. Please fill or tick your answers in the provided spaces.

a) Do you think cash management affects financial performance? (Mark)

Yes ( )      No ( )

b) Give a clarification

.....

.....

c) State the effects of cash management on financial performance?

.....

.....

.....

.....

d) Using a measure of 1-5 indicated below; what is extent you agree/disagree that cash management affects financial performance?

<b>SCALE</b>	<b>1) Not sure</b>	<b>2) Strongly Disagree</b>	<b>3) Disagree</b>	<b>4) Agree</b>	<b>5) Strongly agree</b>
--------------	--------------------	-----------------------------	--------------------	-----------------	--------------------------

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The company states explicitly the duration in days that it can convert its resources like inventory investments in ready cash arising from sale					
To grow and maintain its operations the company always ensures there is a generation of enough positive cash flow with requiring external financing for capital expansion					
The company delays payment of liabilities					
The company keeps inventory levels low					
The company increases the speed of collection on receivables					

**4. CREDITORS MANAGEMENT**

In the questions relating to creditors management given below please spare some time to provide answers. Please fill or tick your answers in the provided spaces.

a) Does creditors management have an effect on financial performance? (Mark)

Yes ( )      No ( )

b) Give an clarification

.....  
 .....  
 .....  
 ....

c) State the effects of creditors management on financial performance ?

.....  
 .....  
 .....

d) Using a measure of 1-5 indicated below; what is extent you agree/disagree that creditors management affects financial performance?

<b>SCALE</b>	<b>1) Not sure</b>	<b>2) Strongly Disagree</b>	<b>3) Disagree</b>	<b>4) Agree</b>	<b>5) Strongly agree</b>
--------------	------------------------	---------------------------------	--------------------	-----------------	------------------------------

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The company has a higher creditors turnover					
The company considers the number of calls made to customers that are likely to result in a potential to pay					

(PTP) against the entire right party contacts (RPCs) that the collectors have made in the similar period					
The company has developed call scripts and revises them frequently to ensure a promise to pay is requested					
The company has implemented payment schedules to allow the debtor to make multiple payments over a time period					
The company informs past due customer of next steps if amount remains unpaid for example through collections letter and turning account over to collections agency					

d. In relation to the topic considered what other comment can u provide?

.....

.....

.....

.....

**You are appreciated for your participation**



**APPENDIX III: DATA ABSTRACTION TOOL**

<b>Financial data</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Net income					
Average shareholder equity					
<b>Return on Equity</b>					
Current assets					
Current liabilities					
Inventory					

## APPENDIX IV: RESEARCH AUTHORIZATION



### KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: [dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)

Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/26934/2019

DATE: 27<sup>th</sup> May, 2022

Director General,  
National Commission for Science, Technology  
and Innovation  
P.O. Box 30623-00100  
**NAIROBI**

Dear Sir/Madam,

**RE: RESEARCH AUTHORIZATION FOR TOBIAS CHACHA OLAMBO REG. NO. D53/CTY/PT/26934/2019**

I write to introduce Mr. Tobias Chacha Olambo who is a Postgraduate Student of this University. He is registered for M.B.A degree programme in the **Department of Accounting and Finance**.

Mr. Olambo intends to conduct research for a M.B.A Project Proposal entitled, **“Working Capital Management and Financial Performance of Energy and Petroleum Firms Listed at the Nairobi Securities Exchange, Kenya”**.

Any assistance given will be highly appreciated.

Yours faithfully,

  
**PROF. ELISHIBA KIMANI**  
DEAN, GRADUATE SCHOOL



EK/nn

**APPENDIX V: RESEARCH PERMIT**



REPUBLIC OF KENYA



NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 587367

Date of Issue: 06/June/2022

**RESEARCH LICENSE**



This is to Certify that Mr.. TOBIAS CHACHA OLAMBO of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: **WORKING CAPITAL MANAGEMENT AND FINANCIAL PERFORMANCE OF ENERGY AND PETROLEUM FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA** for the period ending : 06/June/2023.

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587367

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SCIENCE, TECHNOLOGY &  
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