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

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**ABSTRACT**

*This study examined the impact of working capital management on the financial performance of energy and oil institutions registered on the Nairobi Securities Exchange. A null hypothesis was tested. Descriptive study procedure was employed. Group targeted was 367 personnel in the energy and oil sector. This study used stratified sampling to select 191 employees to participate in the study. The research period was from 2016 to 2020. Controlled questionnaire was the source of primary information. Monetary performance related to return on equity was collected using data abstraction tools as the secondary information. Therefore, this study was based on ethical considerations. Alternative hypothesis was accepted and a rejection of null hypothesis that accounts receivable, inventory, cash, and payables have an impact considered substantial on financial performance of NSE registered oil and energy businesses was accepted. The study concluded that debtors make up a significant portion of the working capital of organizations and companies. These organizations and companies use liabilities in their financial structures to create financial leverage that allows them to increase their return on investment if the revenue generated exceeds their costs. 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. The study recommended that companies should implement effective accounts receivable management systems to impact financial performance. Without proper inventory management, companies can overstock products, which not only results in lost cash flow, but also risks holding dead stock that can become obsolete. An organization should ensure the financial solvency and stability of an organization as it is the procedure in collecting money, observing monies and using projects to invest in, which are a key factor affecting financial performance must have a strict cash management policy. Appropriate credit management systems that improve financial performance to reduce debt-bound capital and reduce the chances of encountering bad debts.*

**Key Words:** Accounts Receivable, Inventory, Cash, Accounts Payable

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## INTRODUCTION

As a result of poor networking monies among companies across the globe, 1000 firms lose nearly \$2 billion yearly. Owing to the recent crisis in the economic and financial aspects, maintaining a strong cash flow position has become more important to companies. The risks involved for companies like illiquidity more often than not increases wherever they are faced with issues of economic downturn and constraints in securing credit. According to Frankfurt Business Media, (2019) whenever companies become illiquid they are unable to appropriately assess their needs requiring cash. This being the case working capital performance comes in handy by providing the critical awareness that firms need to know on the state of their financial position. This fact is enhanced by the Financial Executives International Canada (2020) which argues that for lenders and investors to give a company a clean bill of health in its financial fitness the most significant indicator is examine the working capital in the balance sheet. A business initiative can be financed in two ways namely short and long term. Short term financing is a requirement where a firm requires cash to offset expenditure like payment of wages, raw material procurement and expenditures required on a daily basis while long term financing requirement focuses on the needs of the firm that require capital expenditure. Therefore, working capital management is the financing of business which is short duration in nature and has a close relationship with trade profitability and liquidness. 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).

An organization's short duration or assets that are current is what is referred to as working capital. To ensure that a firm has in place resources that are sufficient to carry out and continue with everyday activities and tasks it remains imperative to manage

its working capital. In a nutshell, this is a summary of disbursement and receipt of cash involving activities carried out by the firm (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).

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.

### **Statement of the Problem**

An essential component in managing finances in firms 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 policies if well designed and implemented can be preventative of operational challenges. The responsibility of the financial manager and those charged with managing the firm's finances to design and implement adequate policies to manage working capital to achieve liquidity (Kombo & Wekesa, 2017).

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 (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. Most companies in Kenya are facing many challenges. 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. 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 as was with KPLC case.

Various researches in different markets that relate to working capital management have been done. For example Ismail, Abdul and Aliyu (2020) assessed the relationship between gains in finances and WCM of quoted conglomerate Nigerian firms. Their research they found out that collection period of debts, inventory conversion period positively related to corporate profitability. The study also established that conversion period of cash, earnings on assets, payment period of credit relate negatively with company profitability. This study while seeking to find out effect of WCM, liquidity and corporate profit levels it did not specifically address the variables which were covered in this study thus debtors management, inventory management, cash management, creditors management and financial performance. 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.

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

The study focal objective was an investigation on influence of WCM and financial performance of petroleum and energy businesses registered in NSE. The specific objectives were;

- To investigate the effect of debtors management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.
- To evaluate the effect of inventory management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.
- To ascertain the effect of cash management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.
- To assess the effect of creditors management on financial performance of energy and petroleum firms listed in Nairobi Securities Exchange.

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.

## **LITERATURE REVIEW**

### **Theoretical Review**

#### **Liquidity Preference Theory**

A model of 1936 by Keynes who argued that money demanded by individuals as assets was speculated and depended on the forgone interests that might have arose from not holding bonds. Atnafu, Balda and Liu (2018) were of the opinion that Keynes` liquidity preference model was about how people put value to money both for transacting in businesses that were current and its value when stored as wealth. Individuals will therefore have their money as a precaution by sacrificing its ability to earn them interest in the present. Equally, people are more willing to hold less cash as they witness increases in interest rates in the hope that they will earn more 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.

### **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 any 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.

### **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.

### **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.

### **Empirical Review**

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.

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 design 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.

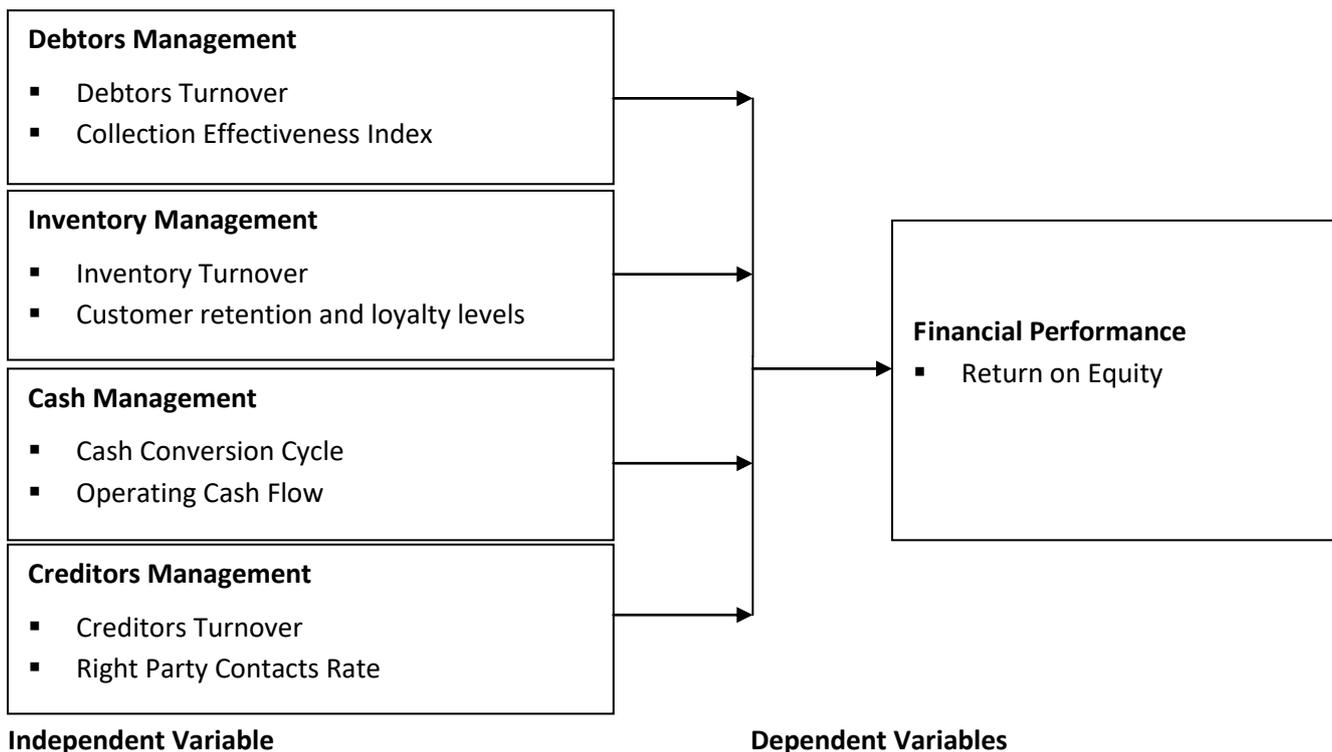
Nwakaego (2016) investigated how financial performance and management cash conversion cycle of companies in the chemical, painting and building materials firms related. The study employed previous data that from yearly statements of these institutions. Using multiple ordinary least square methods as 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.

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.

### Conceptual Framework



**Figure 1: Conceptual Framework**

Source: Researcher (2022)

### METHODOLOGY

Descriptive study procedure was employed. This research design was preferred since there was adequate secondary information in the market regarding the study topic for analysis and establishing of facts. 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. This study used the stratified sampling method in ensuring every company participates were selected for purpose of the research. In determining whether the dependent variable under discussion was predicted by all variables that were

independent the multiple regression analysis was adopted (Saunders, Lewis & Thornhill, 2016). This was used to show degree to which variables under review related to one another.

The equation was:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

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

$\epsilon$  is the error term

## RESULTS AND DISCUSSIONS

### 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.

### 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. 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 1.

**Table 1: Effect of Debtors Management on Financial Performance**

	N Statistic	Mean Statistic	Std. Deviation Statistic
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)**

Study results in Table 1 point out most participants were in agreement stating that for comparison purposes the company relates its debtors turnover ratio with those of firms that are in similar industry with same revenue levels value of mean being 4.2913. The second statement indicating that company compares the amount that was collected in a given time period to the amount of receivables that were available for collection at a mean value of 4.2362 as the aspects of debtors management that affect financial performance most on scale 1.5 used. Additional aspects of debtors management having an influence on financial performance include; the

company rewards efficiency payments by giving customers an incentive to pay their bills early; the company increases collection efficiency which makes it easier for clients to pay on time and company revises credit collections by changing the credit terms a business offers having average values 4.2283, 4.2047 and 3.9843 respectively.

In this study p-value method was applied in testing the null hypothesis; that debtors management effect on monetary performance of petroleum and energy businesses registered at NSE was not significant. Study results on tests as illustrated in Tables 2 and 3.

**Table 2: 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 3: 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 the study indicated 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.

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

The second aim was to evaluate effect of managing inventory management on monetary performance among energy and petroleum businesses registered in NSE. This study was interested at finding out from respondents whether inventory management affects financial performance. Study outcomes indicated that 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.

**Table 4: Effect of Inventory Management on Financial Performance**

	N	Mean	Std. Dev.
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	1.10

**Source: Researcher (2022)**

As shown in Table 4, 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 5 and 6.

**Table 5: 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 6: One-Sample Test- Inventory management**

	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 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.

### 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. From the study outcomes, 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 7 the outcomes were described.

**Table 7: Effect of Cash Management on Financial Performance**

	N	Mean	Std. Dev.
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 7 illustrated 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 8 and 9.

**Table 8: 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 9: One–sample Test- Cash management**

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean	95% Confidence Interval of the Difference	
				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, 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.

### **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’s management had any effect on performance of finances. The results indicated 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 creditors 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 10.

**Table 10: Effect of Creditors Management on Financial Performance**

	<b>N Statistic</b>	<b>Mean Statistic</b>	<b>Std. Deviation 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 Table 10, 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 were illustrated in Tables 11 and 12.

**Table 11: 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 12: 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 11 and 12, 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.

### Inferential Statistics

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 13: 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 were shown in Table 14.

**Table 14: 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. 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.

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 was as shown in Table 15.

**Table 15: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.945 <sup>a</sup>	.893	.888	.28218	.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 15, 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 16.

**Table 16: 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

From outcomes of researcher; static F was 201,424 effect of the WCM variables was significant when p the p-value being 0.000. This implied that aggregate value is less than the alpha value.

**Table 17: Regression model Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	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 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. 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.

From the results, 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.

#### CONCLUSION AND RECOMMENDATION

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.

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 debts 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.

#### **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.

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