Working Capital Management and Financial Performance of Petroleum Firms in Nairobi City County, Kenya

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Abstract

All organizations exist for purposes of enhancing owners' investment value and their success depends heavily on the ability of financial managers to effectively manage the components of working capital. The Petroleum companies require cash to pay for imports and taxes upfront. They keep minimum stock as a legal requirement and have to wait for a long time for tax refunds from Kenya Revenue Authority. Given the regulations in this industry and competition within the industry, working capital management is vital and most of the profits in this industry are attributable to working capital management. Despite the glaring need to enhance the relationship between working capital management and financial performance of the firms, there is a wide knowledge gap that still exists which could point to the possible approaches. This study on the working capital management and the financial performance of petroleum firms in Nairobi City is a modest attempt to bridge this gap. The specific objectives of the study were to determine the influence of average collection period, inventory turnover period and average payment period on financial performance of petroleum firms in Nairobi City County. The study employed descriptive research design. This study focused on 10 petroleum companies operating in Nairobi City County. The target population was 547 management staffs from the major petroleum firms. The sample size was determined using the Slovin's Formula. Holding Average collection period, Inventory turnover period & Average payment period Variables to a constant zero, will significantly influence financial performance of petroleum firms as shown by constant =0.259, From the results, there was a very strong relationship between average collection period and financial performance of petroleum firms in Kenya (r = 0.853). In addition, the results revealed that there is a strong relationship between inventory turnover period and financial performance of petroleum firms in Kenya (r = 0.780) Further, the results revealed that there is a strong relationship between average payment period and financial performance of petroleum firms in Nairobi county (r =0.795) The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The sample size was determined using the Slovin's Formula. The study used simple random sampling to select 232 respondents from the target population. The study used self-administered questionnaires to collect primary data from the respondents. Quantitative data was analyzed by use of descriptive and inferential statistics. Descriptive statistics comprised of measures of central tendency and measures of variability (standard deviation), frequencies and percentage. The study results were presented through use of tables and figures. The study concludes that average collection period has a positive and significant effect on the financial performance of petroleum firms in Nairobi county. In addition, the study concludes that inventory turnover period has a positive and significant effect on the financial performance of petroleum firms in Kenya. Further, the study found that average payment period has a positive and significant effect on the financial performance of petroleum firms. From the results, the study recommends that the top management of petroleum firms should formulate and implement strategies for ensuring minimum collection period and increasing the rate of inventory turnover period i n the top management of petroleum firms.

I. Introduction

1.1 Background of the Study

Financial performance is the determination of how well firms use their assets from their core operations and generate revenues within a given financial period (Armstrong & Fic, 2014). Tanveer, Muhammad, Muhammad, Muhammad and Sadat (2016) indicated that financial performance is measured by various measures such as Return on Asset, Return on Investment and financial management practices. In this study, financial performance was measured in terms of debtors' management, credit management and cash

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Management. Working capital refers to a firm's investment in short term assets such as cash, short term securities, bills receivable, inventory of raw materials and finished goods.

The idea of working capital management concerns organizations' oversight of their current capital. The goal of working capital management is to advance fantastic liquidity, productivity and the value of investors. (Kungu ,2015) The parts of the working capital management incorporate money and attractive protections, account receivables, inventories, and records payable. Powerful working capital administration consists of applying the methods, which remove the risk and lack of ability in paying short-term commitments on one side, and preclude over interest in the possessions in the opposite direction by arranging and dominating current resources and liabilities (Runyora, 2012).

Average Collection Period is the normal number of days between the dates that credit deals were made, and the dates that the cash was gotten/gathered from the clients (Hrishikes, 2012). Normal assortment period is generally significant for oil organizations since they depend vigorously on receivables for their incomes. The normal assortment time frame is demonstrative of the viability of its record's receivable administration rehearses.

To measure normal installment period, the examination will concentrate on all out provider buy, normal liabilities and number of days in the covered time. Inventory turnover period is the aggregate measure of the rate at which a company purchases and resells products to customers (Eroglu & Hofer, 2011). As such it is a common measure of the firm's operational efficiency in the management of its assets. In this study, average collection period will be determined by means of all out net credit deals, number of days in the period and exchange assets.

Average Payment Period is a measurement of how long a time it takes on average for a business to pay back its creditors. Deloof (2013) defined average payment period as the average period taken by the company in making payments to its creditors. As such average payment period is a sensor for how efficiently a company utilizes credit options available to cover short-term needs. For business firms, the average payment period measurement changes slightly over time. The changes to this number is evaluated further to see what effects it has on cash flow rate. This concept will be measured in terms of total supplier purchase, average payables and number of days in the period.

The requirement affecting working capital management is of critical and fundamental importance to any business (Kipkemoi, 2014). Okinyi (2014) notes that majority of the modern-day organizations need a particular amount of functional assets to deal with variable unpredictable financial inflows and outflows. There are certain business challenges that require higher working capital. These challenges include disconnected supply chains processes, excessive stocks caused by non-bridged interfaces, inadequate trade credit terms, and suboptimal loan judgements necessitated by increased functional assets above the normal levels (Okungu, 2014). The key aim of this study is to enquire into the existing association among working capital and financial performance of petroleum firms in Nairobi County. The upcoming section is categorized into Global, regional and local contexts of the concepts under study.

1.1.1 Global Perspective of Working Capital Management

WCM and Financial performance have drawn various views across the world. In Bangladesh, Asaduzzaman and Chowdhury (2014) conducted an empirical study which was built upon the data from Bangladeshi Textiles firms. Their research revealed that there exists a noteworthy connection between WCM and productivity, utilizing four measures, Days of Inventory Outstanding (DIO), Days of Sales Outstanding (DSO), Cash Conversion Cycle (CCC), and Days of Payables Outstanding (DPO) to represent working capital management. While there was a negative relationship between DPO and profitability whereas all the other indicators were positively correlated with profitability. Shrivastava (2017) found that working capital increase productivity in Indian firms between years 2003 and 2012.

The valuable panel information and Bayesian strategies were utilized in this study. The findings of the study indicated that a more extended CCC affects financial performance of firms. They contend that CCC assume a critical role in deciding financial performance of these. Singhinia and Mehta (2017) find that lower levels of working capital are emphatically connected with low performance for organizations in nations like India, Sri Lanka, Indonesia, Malaysia and Singapore. Then again, for organizations in China, Pakistan, Bangladesh, Hong Kong and South Korea, a more elevated level of working capital is decidedly connected with profits realized.

Singhia and Mehta (2017) find that organizations in nations like Thailand, Taiwan and Vietnam don't grasp a U shape or an altered U-molded connection between working capital and financial performance. For example, the after effects of their examination uncovered that benefit is emphatically connected to working capital for Taiwan and Vietnam, yet is negative for Thailand. Studying companies listed on the Thai stock market, Napompech (2012) find a similar conclusion that profitability can be increased by reducing CCC. Charitou, Lois, and Santoso (2012) in the investigation of Asian developing nations indicated a positive connection between CCC and profitability.

1.1.2 Africa Perspective of Working Capital Management

With the African continent the relationship between WCM and financial performance of various corporate organizations has been significantly focused in Nigeria, Imeokparia (2015) established that there is an affirmative correlation among WCM in Financial performance of firms.

Additionally, Akoto, Awunyo-Vitor, and Angmor (2013) examined the impact by using the data from Ghanaian companies, and the results suggested that working capital management (as measured by CCC) positively influenced firms' profitability as measured by net operating profits. According to Kasozi (2017) the impact of working capital management on financial management utilizing a sample of 69 recorded assembling firms in South Africa during the period 2007 to 2016 increased productivity. His findings indicate that ACP and APP have negative yet noteworthy impacts on productivity as proxied by the arrival on resources. Likewise, Kasozi (2017) additionally found that various days in stock, as intermediary of working capital administration has a positive critical impact on productivity. There exists a huge negative connection among working capital management and financial management, while CCC and the DSO yielded essentially positive associations with benefit.

1.1.3 Kenya Perspective of Working Capital Management

WCM and financial performance of organizations are not new concepts in Kenya and there exist a myriad of studies focusing on these two concepts. Budambula (2014) evaluating the impact of WCM on productivity of tea firms where the focus was Chai Trading Company Limited. The study revealed that the firm had set up hearty WCM practices which positively impacted the company's profitability. The study observed that debtors' management had the most significant effect followed by creditors' management, inventories management and overdraft management in decreasing order of effect. Nyabwanga, Ojera, Lumumba, Odondo, and Otieno (2012) examined the impact of WCM on the financial performance of little scope endeavors in Kisii South District, Kenya.

The study finds that financial performance of the small scale enterprises emphatically identified with CCC, DIO and DIO. Waweru (2011) considered the connection between WCM and the value of firms listed at the NSE. The study utilized optional information from monetary reports and normal stock cost to quantify the organizations' worth. The regression results showed that there was connection between working capital management. The Pearson connection demonstrated a negative connection between DSO, CCC cycle and the estimation of the firm.

Njuguna (2018) did a study on impact of WCM on financial part execution of development and unified segment firms recorded in the Nairobi Securities Exchange for the period 2012- 2016. The study found that there was low degree of correlation between average collection period and firm performance; this may be due to the shorter five-year period within which the study was conducted. Lastly, the study revealed that there was insignificant correlation between payables deferral period and firm's earnings per share.

1.1.4 Petroleum Firms in Kenya

Oil industry in Kenya is governed by an Act of Parliament the Energy Act, 2006 Laws of Kenya. Part I of this demonstration characterizes oil to incorporate "oil unrefined flammable gas and any fluid or gas produced using oil rough, gaseous petrol, coal, schist, shale, peat or some other bituminous substance or from any result of oil unrefined, petroleum gas and incorporates condensate. It also defines petroleum business to mean "a concern carrying on the importation, refining, storage, transportation or sale of petroleum. These companies therefore, are going concerns that import, refine, store, transport or sale petroleum products to consumers of such products. Given the nature of petroleum products, petroleum business is strictly regulated. license is only issued if the commission is convinced that the licensee has complied with the requirements of Section 90 and 91 of the Energy Act which among other requirements, requires compliance with the Environmental Management and Co-ordination Act,1999 Laws of Kenya and in particular the report of the Environmental (Impact Assessment and Audit) Regulations, 2003, the Physical Planning Act, 1996 Laws of Kenya.

The Local Government Act and any other relevant legislation (sec 91 subsection b). Petroleum products sold in Kenya is imported either as crude and refined by Kenya Petroleum Refineries or imported as already refined product for direct sale in the market. Part 11 of the Energy Act, 2006, Laws of Kenya establishes Energy Regulatory Commission. Section 6 stipulates the powers of the Commission. The Kenyan oil and gas trading firms require cash to pay for imports and taxes upfront. They keep minimum stock as a legal requirement and have to wait for a long time for tax refunds from Kenya Revenue Authority (Muriuki 2013).

Given the regulations in this industry and competition within the business, working capital administration is essential and the vast majority of the benefits in this industry are owing to working capital administration (Runyora 2012). Oil and gas firms ought to dexterously deal with the working capital segments to stay productive.

1.2 Statement of the Problem

Financial performance is a way of determining how well a firm uses its assets from its core operations and generates revenues within a given financial period. The petroleum firms have a poor financial performance and they conduct regular audits on their investments, they are severally being faced with financial management problems forcing them to forge tactics to counter financial risks associated with this concept. There has been recurrence of this problem over the years since the financial management has not yet been resolved. Nevertheless, there has been little research on working capital management and financial performance of petroleum firms in Nairobi county. Petroleum firms exist for purposes of enhancing owners' investment value and prosperity of such organizations is banked largely on their capability to efficaciously plan and control various aspects of functional resources and assets (Machina & Kiano, 2014; Mwangi, Muathe, & Kosimbei, 2014; Kung'u, 2015). Realization of this objective requires tactical skills in financial strategy and entrenchment of responsive adoption frameworks and procedures. In the Kenyan gas and oil business, a common feature in the current assets is stock of petroleum products which is kept for sale. Apart from coming up with their own working capital practices, firms in this industry must comply with regulation on environmental issues pertaining to petroleum businesses in Kenya (Energy Act 2006 S.179 Laws of Kenya). They operators of petroleum and gas businesses are required to keep minimum stock by Kenyan law to ensure uninterrupted provision of gas and oil in the economy (Energy Act 2006 s.175 Laws of Kenya). The existing researches have focused on different settings and industries whose dynamics are inconsistent with the current context of the petroleum firms. Nevertheless, none of these studies showed the influence of working capital management (average collection period, inventory turnover period and average payment period) on financial performance of petroleum firms in Nairobi City County.

To fill the highlighted gaps, the study sought to assess the influence of working capital management (average collection period, inventory turnover period and average payment period) on financial performance of petroleum firms in Nairobi City County.

1.3 General Objective
The study was guided by both general and specific objectives
1.3.1 General Objective
The general objective of the study was to establish the working capital management and financial performance of petroleum firms in Nairobi City County
1.3.2 Specific Objectives
The specific objectives of the study were: The study was guided by the following specific objectives
  i.   To determine the influence of average collection period on financial performance of petroleum firms in Nairobi City County.
 ii.   To evaluate the effect of inventory turnover period on financial performance of petroleum firms in Nairobi City County.
iii.   To establish the influence of average payment period on financial performance of petroleum firms in Nairobi City County.

1.4 Research Hypotheses
The study proposed the following hypotheses:
H_{01}: There is no relationship between average collection period and financial performance of petroleum firms in Nairobi City County
H_{02}: There exist no relationship between inventory turnover period and financial performance of petroleum firms in Nairobi City County
H_{03}: There exists no statistically significance relationship between average payment period and financial performance of petroleum firms in Nairobi City County

1.5 Significance of the Study
The findings of this study are of great significance to petroleum firms in Nairobi because they may use this study to formulate strategies that maximize optimal working capital. Additionally, the findings of this study highlights whether the petroleum firms' investments have actually paid off through enhanced financial performance. By so doing, petroleum firms can make informed decisions on how to manage the effects of working capital. The study is of help to the management of petroleum firms in Nairobi county as it will assist them in pointing out the working capital on petroleum firms' financial performance.

By extension, the study 's findings might help the policy makers in formulating interest rates policies and in dealing with external or exogenous factors affecting working capital. The study will benefit the government in setting up their taxation rates and other macro-economic policies (both fiscal and monetary) that would help stabilize working capital, optimize financial performance of petroleum firms and spur their growth. This would help foster petroleum firm's performance. The results of the study are of importance to the scholars

and researchers by contributing to the existing body of knowledge in the area of finance especially working capital. Academicians may use findings for further research as a reference point and for literature and empirical purposes. As such, the study provides a platform for further research in the area of working capital and financial performance of petroleum firms.

1.6 Scope of the Study

The study was conducted on relationship between working capital management and financial performance on petroleum firms in Nairobi County. The study was conducted in Nairobi because the major petroleum firms are having their headquarters in Nairobi County to study the challenges of stocking of petroleum firms in Nairobi County. Formulated questionnaire was used for sample survey, measure taken was explain the sample group that the information was for research purposes only and that privacy of their information would be ensured.

1.7 Limitations of the Study

One of the impediments emanated from the aspects of confidentiality where the respondents were unwilling to give the researcher any information sought with regard to WCM and monetary execution of the petroleum firms. To counter this, challenge the respondents were assured that the information was only to be used for research purposes. The researcher also carried an introduction letter from JKUAT as well as other concerned authorities and assured them that the information they gave would be treated confidentially. Staffs working in the petroleum companies, operate on tight schedules; as such they are were unable to complete the questionnaire in good time and this might overstretch the data collection period.

The management of these firms also had limited amount of time period for participating in the research process which might contribute to a gap of responses from the key persons. To counter this limitation, the researcher tried to be flexible to fit into the respondents' schedules for the data collection when they are likely to be free and give them enough time to fill the questionnaires. The study also made use of network to persuade targeted respondents to fill up and return the questionnaires. The issue   generalizing and deducing the magnitude the findings from this study related to WCM and monetary execution among another group of firms or industries in Kenya. The study attempted making this investigation more typical with an aim of assisting other firms understand the role of WCM and financial performance both locally and internationally.

II.   LITERATURE REVIEW

2.1 Introduction

A literature review is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. This literature review is undertaken to enhance knowledge and bring out the research gaps about the subject matter. This chapter discusses the theoretical aspect of the study, the empirical framework, the conceptual framework and the summary of literature reviewed.

2.2 Theoretical Review

This section discusses the theories on which this study is anchored. Theories are used by scholars when performing research studies to form a foundation for the parameters, or boundaries of a study.

2.2.1 Cash Conversion Cycle Theory

Cash Conversion Cycle (CCC) Theory proposed by Richards and Laughlin's 1980. depicts the interface amid the constituents of working capital and the cash flow within a firm, and it can be utilized to decide on the sum of cash required for any degree of sales. Cash conversion cycle is used to proxy the scope of time in days it takes for a firm to change asset contributions to cash. The cycle is basic for firms in that it evaluates how quickly a firm can change its asset contributions to money.

The more extended the cycle, the lengthier time capital is tied up and contrarily impacts the business activities and the opposite way around. It is figured as records receivable days' additional stock days less records payable days. This theory is employed as a comprehensive assessment of operational resource due to its ability to showcase the period between sums utilized in buying the crude materials and period during which money for completed items is being assembled (Padachi, 2016).

At the point when a company transient resources and liabilities are continually managed, this will eventually participate in the accomplishment of the company. It is believed that those firms whose long-term views are developing and have a sound bottom line often cannot be able to pay all debts the good management of liquidity (Jose & Lancaster, 1996). The main critique of CCC is on the amount of time between obtaining the staple material and the inflow of cash from the selling of finished products. It also corresponds to the amount of days of planned activities in which financing is required. According to Jose and Lancaster (1996), CCC

compounds both the information on the statement of income and the balance sheet to make quantification with time measure, and this is functioning assessment of management of liquidity. The accurate method hence is to make a comparison of a particular company to the establishment to which it works within (Hutchinson, 2007).

The length of the CCC is provided by; CCC = Inventory days + Trade receivables - trade payables days as Arnold (2008) found out, the briefer the CCC is, the less resources required by a firm, and the more extended the CCC is, then the investments will be complicated. An extended CCC however could cause a growth in sales thereby leading to a high profitability. This extended CCC on the other hand would also cause high investments and could continue to incline further than the advantages of advanced productivity. Since every corporate organization is extremely concerned about how to sustain and improve profitability, hence they have to keep an eye on the factors affecting the profitability. In this regard, cash conversion cycle theory plays a crucial role in informing the relationship between inventory conversion period and the financial performance of petroleum firms in Kenya.

2.2.2 Operating Cycle Theory

Operating cycle is the average time between the acquisition of materials or services and the final cash realization from that attainment. This hypothesis was proposed by Richards and Laughlin in 1980 and it looks explicitly at one side of WC, that of CA and therefore gives income statement measures of firms operating activities, that is, about production, distribution and collection.

The theory postulates that incorporating working capital measures like money due and stock overturn to a working series idea gives a fitting perspective on liquidity control than the utilization of conventional estimates, for example, current and basic analysis ratios. Weston (1979) noted that the additional liquidity measures recognize that life expectancies of some working capital components depend on the extent to which production, sales and collection are non- instantaneous and non-synchronous. This theory looks explicitly at one side of working capital that of current asset account and therefore gives income statement measures of firm's operating activities, that is, about production, distribution and collection.

Providing more liberal credit policy for the customers will increase profitability but at the same time sacrifice liquidity. The same analysis applies to other Current Asset account components. Even so, OCT tends to be disappointing in that it suggests current liabilities are not important in the course of the operation of the firm. The critics also challenge the idea that the actions of investors do not have an influence on the market; it is claimed incorrect, as great amount of sale and purchase of separate securities has an impact on the price value of the security or related securities. Besides, the correlations between assets are never stable and fixed; they tend to change proportional to the universal relations, existing between fundamental assets (Weston & Eugene, 1979). Moreover, the hypothesis does mathematical calculations on anticipated values, based on past performance to gauge the connections among risk and return.

However, experienced investors consider past performance not to be an assurance of future performance. Considering just past performances prompts over passing more up to date conditions, possibly not having existed during the time when the historical information was gathered. Accounts receivable turnover indicates then speed with which firm's receivables are converted to cash. Higher current ratio implies that firms have accumulated current assets such inventory that lie idle and therefore do not generate profits (Weston 1979). Incorporating the two measures of working capital measures provides an arguably realistic approach to firm's liquidity position.

OCT is fundamental in establishing directly the role of current asset account and therefore gives income statement measures of firm's operating activities (involving total supplier purchase, average payables and number of days in the period) which collectively are the measures of average payment period in the companies involved in marketing of petroleum and its products.

2.2.3 Net Trade Cycle Theory

The Net Trade Cycle Theory (NTCT), formulated by Shin and Soenen (1998) shows the amount of time taken (in days) for the revenue (sales) of a given company pay its operating resource. Net Trade Cycle equivalents to the money transformation cycle where the three parts of the money change series (assets, stocks and account payable) are explained as a rate of deals, thus making the net exchanging cycle simpler to ascertain and less complicated. Shin and Soenen (1998) explored the connection among the net exchange as a proportion of working capital and rate of profitability in the US firms.

The consequences of chi-square test showed a negative connection between the length of Net Trade Cycle and Return on Assets. Besides, this converse relationship was discovered diverse across industry. A noteworthy relationship for about portion of the ventures considered demonstrated that the outcomes may differ between industries and sectors. Some critics argue that net trade cycle is solely a way of managing short-term investments and financing. However, opponents argue that in order to fully understand the topic, there are more aspects that have to be taken into consideration (Banham, 2013) Moreover, the net trade cycle -critics argue that
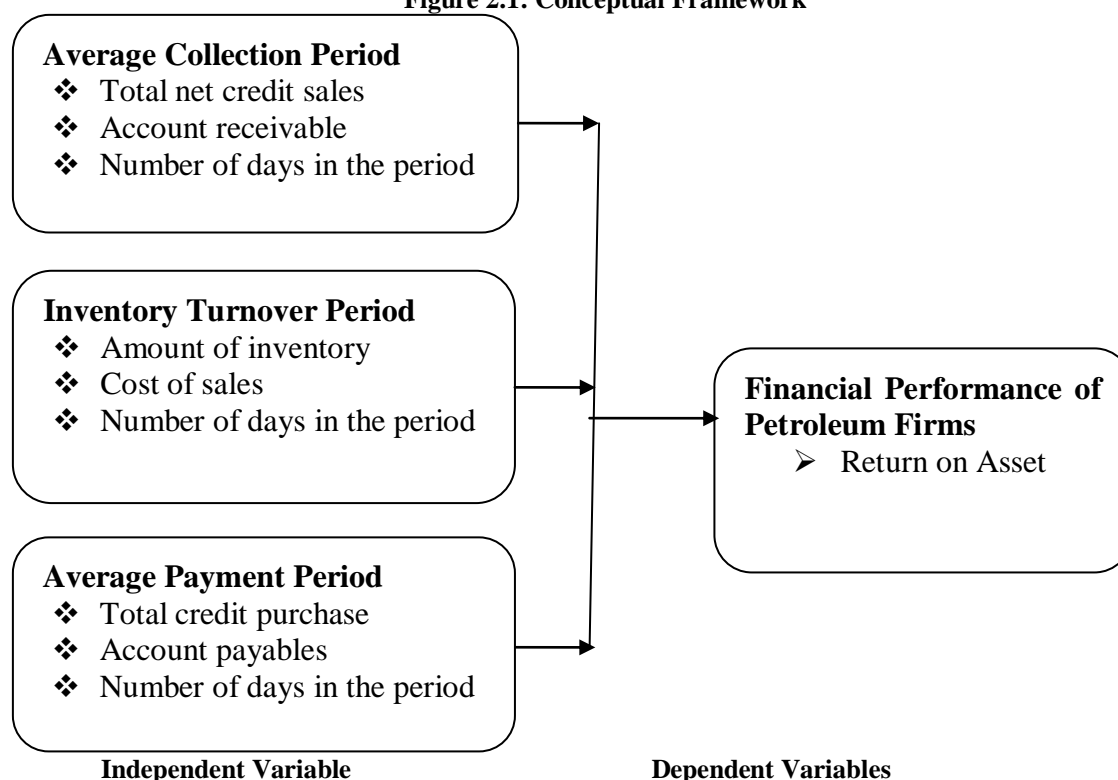
it is an expensive form of management and that focusing on other management issues, such as just-in-time, is more efficient and will provide a similar outcome.

It is an easy device to estimate for additional financing needs with regard to working capital. The reason for using net trading cycle theory in this study is because it can be an easy device to estimate for additional financing needs with regards to working capital expressed as a function of the projected sales growth. As such, this theory will be vital in determining relationship between average collection period and monetary performance of companies within the petroleum sector.

2.3 Conceptual Framework

Kombo and Tromp (2009) explained a concept to be a general idea obtained from specific instances. A broad set of ideas and principals obtained from relevant areas of enquiry and applied in structuring subsequent presentations is referred as a conceptual framework. It can also be defined as hypothesized model that identifies the model that is being investigated and the relationship that exists between the study variables (Mugenda & Mugenda, 2008; Smith, 2013). Kothari (2010) explained an independent variable or explanatory variable to be the aspect assumed to be the cause of variation in the dependent variable while the dependent variable is the factor the researcher seeks to explain. The figure below represents the variables the study investigated and their assumed relationship

Figure 2.1: Conceptual Framework

Average Collection Period
- ❖ Total net credit sales
- ❖ Account receivable
- ❖ Number of days in the period

Inventory Turnover Period
- ❖ Amount of inventory
- ❖ Cost of sales
- ❖ Number of days in the period

Average Payment Period
- ❖ Total credit purchase
- ❖ Account payables
- ❖ Number of days in the period

Financial Performance of Petroleum Firms
- ➢ Return on Asset

Independent Variable   **Dependent Variables**

2.4 Empirical Review

WCM is regarded as a crucial element for estimating the fiscal execution of an organization. According to Vahid, Mohsen and Mohammadreza (2012) WCM acts as a key element in determining success or failure of firm in business performance due to its effect on firm's profitability and in fluidity. Expeditious WCM practices enable firms to react quickly and genuinely to unexpected changes in economic environment and gain competitive advantages over its rivals (Alshubiri, 2011). To ensure an ideal level of working capital is achieved, there are four management practices that can be considered: cash control, stock administration, account receivables the executives and record payables the control practices.

The success of a firm heavily depends on the effective skills of financial managers. With limited access to the long-term capital markets, these firms tend to rely more heavily on owner financing, trade credit and short-term bank loans to finance their needed investment in cash, accounts receivable and inventory. However, the failure rate among small businesses is very high compared to that of large businesses. Nkwankwo and Osho (2010) state that companies that deal with their WC wastefully have higher probability of anarchy befalling on them. These kind of disasters usually include background, powerlessness to extend, decrease in

estimation of the organization and its stocks; failure to adapt authoritative specialized advancements and money related misfortunes, liquidity, vulnerability to liquidation and indebtedness. Muhammed (2015) researched on relationship among WCM and profitability of companies: a comparative study on Middle East and West Europe companies.

The result of the regression analysis showed that Debtors' Collection Periods has negative and insignificant relationship with firms' benefit. Money Conversion Cycle has no huge relatedness with organizational gain. Notwithstanding, Creditors' Payment Period has noteworthy supportive relatedness with gains recorded by the firms. Khan, Deng and Khan (2016) study researched an exact examination of stock turnover execution inside a Local Chinese Supermarket.

The information drawn from their interior data set involve 41 months and incorporated the data about deals of items having a place with 27 unique items classes (food and non-food) and store containing more than 20,000 items one after another. The analysis uncovered a negative connection between stock overturn and net revenue rate, while positive relationship exists between stock turnover rate and sales across all categories and modalities.

2.4.1 Average Collection Period and Financial Performance

Average Collection Period (ACP) includes dealing with the credit accessible to the company's clients, and furthermore in getting, handling and gathering installments. Record receivable as one the three factors in real money transformation cycle (CCC) spoke to as the normal assortment time frame result from an organization selling its items or administrations on layaway. This period is the normal length time structure a deal using a credit card until the installment becomes usable assets for the firm (Attari and Raza, 2012).

ACP includes dealing with the credit accessible to the association's clients, and in getting, handling and gathering installments. Setting credit measures empowers successful administration of credit and records receivable procedure (San and Heng, 2011). This procedure includes applying strategies for figuring out which client ought to get credit and how much credit ought to be allowed. Loosened up credit gauges by and large return expanded deals and extra benefits, while fixed credit guidelines decrease interest in money due and in this manner brought down deals and benefit (Hrishikes, 2012.

As indicated by Pandey (2014), debt claims are cash owed to a firm when it sells its items or administrations on credit and it does not receive cash immediately. Credit is the ability of a business or an individual to obtain economic value on faith in return for an expected future payment. Trade credit is provided when there is a delay between the delivery of goods and the provision of services by a supplier and payment for them. For the seller, or the service provider.

According to Hrishikes (2012), accounts receivable is created by a firm when it sells its output on credit. According to Pandey (2014), trade credit creates receivables or book debts which the firm is expected to collect in the forthcoming period. Loosened up credit guidelines for the most part return expanded deals and extra benefits, while fixed credit gauges diminish interest in records of sales and hence brought down deals and benefit. The elements of records receivable administration emanate from its goal which is stated simply as setting out credit terms, selecting the customers, installing appropriate collection and monitoring system and financing the receivables for enhancing worth of an organization (Hrishikes, 2015).

In spite of the fact that accounts receivables are present moment in nature, the arrangement choices that make accounts receivables regularly have a drawn out effect on the association and its monetary structure, on the grounds that, when a receivables strategy is resolved, it is hard to emerge from it with the exception of at the expense of antagonistic market responses. Also, credit strategy choices are essential for an incorporated methodology, and interface effectively with creation, promoting and fund elements of a venture (Hrishikes, 2015). Arnold (2016), further say that if a firm decides that it is in its best interest to allow delayed payments then it needs to set up a system and guidelines which will amount to a debtor policy.

2.4.2 Inventory Turnover Period and Financial Performance

Stock management is a system of controls and instructions that track inventory levels and decide what quantities, when to replenish and how long each order should be kept. In the context of possible spoilage, obsolescence and storage costs, too much stock causes additional costs (Brooks, 2013). Inventory consists of the company's stock of raw materials, processing work and finished goods. Due to the large investment involved, inventory as one of the major components of the WCM is a crucial concern for companies. Companies are striving to maintain optimum inventory levels to avoid potential significant losses in asset values and to increase firm profitability. The smaller level of inventory needed to support the firm's sales, the quicker the entire capital overturns.

Aggressive working capital policy, organization holds a minimal level of inventory, minimize costs, finance part of its permanent asset base with short term debt, but the organization may not be able to respond rapidly to increases in demand because of the low stocks. A large inventory is maintained under the conservative policy and therefore the return is lower than under an aggressive argumentation. Eroglu and Hofer

(2011) contend that stock leanness is the best stock administration instrument. Lean creation itself considers stock as a type of waste that ought to be limited and it has gotten equal with great stock management. There exists conflicting view that stock execution ought not be estimated as a powerful marker of in general execution. At the point when the impacts of time are considered, turnover enhancement for normal has a marginally negative impact on ROA.

Also, turnover improvement displays a noticeable irregular impact. Kolias et al. (2011) present that stock turnover proportion (as an estimation of stock administration), is contrarily corresponded with net edge. Also, there exists a negative connection between net edge and stock turnover. This suggests retailers' exchange off gross edge for stock goes to accomplish comparative profit for stock venture since, if stock turnover proportion is lower than focused given the degree of gross edge, at that point the board ought to be frightened with this wastefulness. Too and Kubasu (2016) contemplated the impact of working capital administration rehearses on a company's productivity of assembling firms recorded in Nairobi Securities Exchange. Their investigation utilized a connection inquire about plan.

The number of inhabitants in the examination included all assembling firms recorded under assembling and agrarian segments at the Nairobi Securities Exchange. The aftereffects of the examination uncovered that there was a critical relationship between the free factors of Payables period, Receivable period and Inventory Period and productivity of the contemplated units. Stock turnover period contributed the most vital to profit with a beta of 0.283 (28%) differentiated and various variables of working capital. Cyprian, Jomo and Tobias (2014) assess the effects of Working Capital Management on the introduction of structures recorded on the Nairobi Securities Exchange.

The aftereffect of the investigation uncovered a noteworthy positive connection between Creditors' Payment Period and money related execution.

2.4.3 Average Payment Period and Financial Performance
This is the mean time a firm has taken to pay its trading payables, i.e. its suppliers. Similar to the accounts receivable companies need to monitor payable accounts to ensure that they make their payments at an optimal time. Firms follow systems like extending the records payable to decrease the immediate expense of exchange credit as it stretches the time that a structure has utilization of assets (Berk, 2014). An association's refined records payable cycle would upgrade the association's future income figures and along these lines causes the firm to improve its liquidity and fortify its WC. Accounts receivable represents the rate at which the firm collects payments from its customers (Sharma & Kumar 2011).

According to Deloof (2013) control of records receivables which targets keeping up an ideal harmony between every one of the records receivables segments, that is, money, receivables, stock and payables is a key piece of the general corporate procedure to make esteem and is a significant wellspring of upper hand in organizations. Makori and Jagongo's (2013) study on assembling and development firms recorded on Nairobi protections trade, Kenya. A decent board information investigation of 100 firm year perception in their examination discovered negative connection among gainfulness and number of day's records receivable and CCC, yet a positive connection among productivity and number of long stretches of stock and number of day's payable.

Budambula (2014) inspected the impact of working capital administration on productivity of tea exchanging firms an instance of Chai Trading Company Limited. The examination found that the firm had set up vigorous working capital administration rehearses which positively impacted the company's profitability. The study observed that debtors' management had the most significant effect followed by creditors' management, inventories management and overdraft management in decreasing order of effect. Kumaraswamy (2016) examined the impact of WC on monetary execution of Gulf Cooperation Council Firms for a period of 2008-2014.

Four theories relating to average installment period components were studied utilizing linear regression models. The outcomes of regression show normal installment period to be the most critical elements followed by normal installment period.

2.5 Critique of Existing Literature
Majority of the researches reviewed concentrated on the developed countries. The increase in access to credit in many industries has contributed to a growing level of consumer indebtedness. Managing accounts receivables is a problem for all companies that offer credit items, and the challenge for businesses is to maintain profit margins by eliminating write-offs, reducing the cost of acquiring and optimizing the cash received. In practice, Onwumere et al (2012) argue that it's become a significant issue in associations with numerous money related officials attempting to distinguish the essential records receivables drivers and the suitable degree of records receivables to hold in order to limit hazard, viably get ready for vulnerability and improve the general execution of their organizations (Ruichao, 2013).

Consistent audit and occasional survey are two primary types of models for organizations to choose when to order. At that point the management settles on the decision whether the organization needs to order more. And different from the continuous review strategy, the periodic review at regular intervals wherein the stock is

inspected, and an appropriate quantity is ordered after each survey. Simchi-Levi et al. (2014) additionally notice that both of the above two models have a typical basis, which is the concept of inventory position. Davis et al. (2013) pointed out the reorder point (ROP) framework decides when to place orders based on the number of component units on hand.

The reorder point comprises of two segments. The first is the average demand during lead time, and the second is the safety stock. The safety stock is the amount of inventory that the organization needs to keep at the distribution center and in the pipeline to shield against deviations from normal interest during lead time (Simchi-Levi et al., 2014). ROP is determined utilizing lead time, normal interest, and security stock.

Lin (2014) recommended if request has no occasional change, and the provider's lead time is dependable, the reorder point is only the interest during lead time (DDLT) in addition to a limited quantity of wellbeing stock. In the absence of written credit policy document, credit decisions suffer from short-term considerations and this may often cause a firm severe liquidity crisis (Hrishikes, 2015). The essential objective of receivables the management is maximizing worth of an enterprise by striking a balance between liquidity, risk, and productivity. A critical part of receivables management includes the best possible choice of clients, on the grounds that each credit deal includes the risk of delayed payment or non-payment of the value in question (Hrishikes, 2015).

2.6 Summary of Reviewed Literature
This chapter has reviewed literature on working capital management and financial performance of petroleum firms in Nairobi City County. Average collection period, inventory turnover period and average payment period affects the financial performance of petroleum firms. The chapter also presented a review of theories relating with the study. The study has also reviewed theories related to working capital management and financial performance of petroleum which are Cash Conversion Cycle Theory, Operating Cycle Theory and Net Trade Cycle Theory. The conceptual framework reviewed showed the relationship between the study variables. The reviewed studies have been criticized and gaps that the study aims to fill identified.

2.7 Research Gaps
From the foregoing review, there exist several gaps emanating from the literature and theories. An optimal management of working capital contributes positively to firm's performance and creation of a firm's value. Existing literature also reveal that some of the approaches influenced corporate profitability in variant proportions depending on the sector the firms operated. In spite of all these some gaps exist because there are still no conclusive results that have been arrived at. The available studies applied varying research designs and involved different analytical approaches in investigating this concept.

The existing researches have focused on different settings and industries and there exist various studies that revolve around working capital, however, there has been scanty attempt to link the relationship between working capital management practices (average collection period, inventory turnover period and average payment period) and financial performance of firms especially in the current era when the technological advancement and changing economic dynamics lead to major results on their relationship.

III.   Research Methodology

3.1 Introduction
Methodology of research includes particular techniques followed in the process of gathering, compiling and analyzing the data. It describes those methods which are used in a particular research study to gather relevant information. This chapter gives a description and approaches which was applied in conducting the research. The principal themes include the research designs, target populace, data collection instruments and data analysis models for testing the research questions and assumptions of regression analysis.

3.2 Research Design
Research design is defined as a framework of methods and techniques chosen by a researcher to combine various components of research in a reasonably logical manner so that the research problem is efficiently handled. This study employed descriptive research design. According to Cooper and Schindler (2011), a descriptive research collects data from members of a population and helps the researcher get the descriptive existing phenomena by asking individuals about their perceptions, attitudes, behavior or values.

In this study the descriptive research design was deemed appropriate because it enhances uniform data collection and comparison across many respondents at one point in time. Thus, this type of research is the most suitable in regard to the nature of data used as it seeks to establish causal relationships between variables. This design offers the researcher an opportunity to capture population characteristics and test hypotheses quantitatively. The descriptive study design also allows the study to generalize the findings of this particular research.

This was most suitable because it involves collecting information from the units of observation. This is a formal, objective, systematic process in which numerical data are used to obtain information about the population under consideration.

3.3 Target Population
Target population refers to the whole class of individual persons, elements or objects to which researchers are interested in generalizing the conclusions. The target population usually has varying characteristics and it is also known as the hypothetical universe. The key focus universe comprises of firms involved in business of petroleum and petroleum products with operations and head offices within Nairobi County. From the 2019 records of Petroleum Institute of East Africa- PIEA, thirty-six (36) petroleum companies have been registered to carry out their operations in Kenya. This market is dominated by ten (10) companies which accumulatively control over 72% of the market and at least 3% individually.

This study focused on these 10 companies; they formed the unit of analysis. The population of interest therefore, involved companies which have various evident features which are interesting for the research (Mugenda & Mugenda, 2012). The focus on the aforesaid companies is based on the WCM practices as manifested in the launch and commercialization of new products as well as expansion to both local and international markets. In this study, the top, middle and low-level. Management staffs were considered owing to their positioning to respond effectively in this study. The unit of observation was the top, middle and low management staffs. The ten companies focused on had a total of 547 management staffs from the major petroleum firms with a market share of above 3%. The distribution of this population is shown in Table 3.1.

Table 3.1: Accessible Population

Company	Top Management		Middle Management		Low Management		Total	
	F	%	F	%	F	%	F	%
Total Kenya Limited	11	12.9	19	12.3	39	13.1	69	12.6
VIVO Energy Kenya Limited	11	12.9	20	12.9	40	13.4	71	13.0
Hashi Energy Limited	10	11.8	17	11.0	35	11.7	63	11.5
Gulf Energy Limited	9	10.6	17	11.0	32	10.7	56	10.2
Libya Oil Kenya Limited	8	9.4	14	9.0	28	9.4	50	9.1
Gapco Kenya Limited	8	9.4	14	9.0	28	9.4	50	9.1
Regnol Oil Kenya Limited	7	8.2	13	8.4	25	8.4	44	8.0
Petro Oil Limited	6	7.1	14	9.0	19	6.4	44	8.0
National Oil Corporation of Kenya Limited	6	7.1	11	7.1	20	6.7	44	8.0
Shell Petroleum	9	10.6	16	10.3	32	10.7	56	10.2
Total	**85**	**15.5**	**155**	**28.3**	**298**	**54.5**	**547**	**100**

Source PIEA (2019)

3.4 Sampling Frame
A sampling frame is a list or other device used to define a researcher's population of interest. The sampling frame of appendix II defines a set of elements from which a researcher can select a selected section from the study populace. The sampling frame for this study was the list of the oil companies in Kenya. A lot of data used to recognize a sample population for measurable treatment. An inspecting outline incorporates a mathematical identifier for every person, in addition to other distinguishing data about attributes of the people, to help in research and consider division into further edges for additional inside and out investigation. The sampling frame for this study consists of the 10 petroleum companies which accumulatively control over 72% of the market and at least 3% individually. The 10 petroleum companies are the major ones that operate retail outlets in majority of the towns in Kenya.

3.5 Sample size and Sampling Techniques
The sample size was determined using the Slovin's Formula on the basis of those variables in the sample that are likely to have the greatest variability. From the population of 547 major oil marketing companies, Slovin's formula was used to calculate the sample size (n) given the population size (N) and a margin of error (e). It is computed as n = N / (1+Ne2). Tejada and Punzalan (2012) argue that in a number of research studies involving surveys, the Slovin's formula is used to determine the sample size. In these regards, the study involves 232 top, middle and low-level management as the units of observation.

$$\frac{N}{1+(N)e^2} \quad \frac{N}{1+(N)e^2}$$

n= …………………………………………………………………………….……E q. (3.1)
Where n=number of samples

N=total population (N=547)

e=margin of error (e=5% or 0.05)

n=
$$\frac{547}{1+1.3775} \quad \frac{547}{1+1.3775}$$

n=
$$\frac{547}{2.3775} \quad \frac{547}{2.3775}$$

n=

n = 231.7560463

Therefore, the sample size for the study was 232 respondents.

Table 3.2: Sample Size

Category	Sampled	Percentage
Top level management	41	18
Middle level management	65	28
Low level management	126	54
Total	**232**	**100**

3.6 Data Collection Instruments

Data collection is a process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses and evaluate outcomes' researcher can evaluate their hypothesis on the basis of collected data. Data collection instruments are instruments that are used to collect data from participants of the study. They are important for collecting data in all types of research methods. They are mainly used by researchers to collect reliable data which is later analyzed (Aina, 2004).

This study utilized a primary data gathered using research questionnaire as the main primary data collection research instrument. The reason why a questionnaire is selected is that it takes less time to administer. Intended questionnaire was mainly quantitative which included structured and semi-structured questions as this provides the flexibility for specific and unique responses to some of the questions. The questionnaire was made up of two major parts: The first section contained the background information of the respondents, while the second section covered WCM and financial performance.

3.7 Data Collection Procedure

This research gathered quantitative data primarily using a self-administered questionnaire The researcher physically dropped the questionnaires at the place of work of the respondents and pick them up after they have been filled in. The organized inquiries were utilized with an end goal to preserve time and cash just as to encourage in simpler investigation as they are in prompt usable structure; while the unstructured inquiries were utilized in order to urge the respondent to give a top to bottom and felt reaction without feeling kept down in uncovering of any data. Every poll was coded and only the researcher knew how individual reacts. The coding method was utilized to coordinate returned finished surveys with those conveyed to the respondents.

3.8 Pilot Test

The pilot study was conducted using 10 per cent of respondents drawn from the 10 petroleum companies operating in Nairobi.

This formed a pilot of 23 respondents. It is only during pre-testing when researchers assess the simplicity of using the instrument. Any sensitive, confusing or biased items was identified and modified or omitted. Pretesting permits refinement before the final test. This is the researcher's best opportunity to revise scripts, look for control measures and scan the environment for factors that confound the results. This involved checking whether the questions are clear and revoking any positive or negative response. It also helped to find out whether the questions are measuring what is expected.

3.8.1 Validity of the Research Instruments

Validity is a measure of the degree to which data collected using a particular instrument represents a specific domain or substance of a concept. Mugenda and Mugenda (2012) contend that the usual procedure in assessing the credibility of the measurement is using qualified or proficient persons in the specific area of study. Thus, the researcher sought opinions of scholars and experts including the study supervisors. This allowed modification of the instrument thereby enhancing validity. Furthermore, the study assessed the responses and non-responses per question to determine if there was any technical dexterity with the questions asked. (which validity)

3.8.2 Reliability of the Research Instruments

Mugenda and Mugenda (2008) defined reliability to be the level in which a research instrument provides consistent output even after being administered severally. Reliability was also confirmed by pre-testing the

questionnaire with a selected sample from one of the projects. Reliability was ensured in this study by pre-testing the questionnaire using a selected sample. The pre-test exercise took place at the researcher's and selected study participants' convenience to enhance questionnaire clarity. This instrument was reviewed based on the pre-test experience. Internal consistency method was tested using Cronbach's Alpha, that is, how closely related a set of items are as a group.

A "high" value of alpha is often used as evidence that the items measure an underlying (or latent) construct. Reliability with a predetermined threshold of 0.7 is considered acceptable. That is, values above 0.75 indicate presence of reliability and vice versa. The pilot study was carried among 23 respondents purposively chosen from companies within the energy sub-sector in Nairobi and reliability tested using a Cronbach's Alpha. A reliability of above 0.7 was achieved and this was considered reliable as recommended by Sydorenko (2012) who recommended that a reliability test which yields a coefficient greater than or equal to 0.7 is sufficient enough. The respondents were also informed that the research is meant for academic purposes only and that the study had no intention of using the information for personal gains. The respondents were not required to indicate their names and participation in the study was on voluntary basis.

3.9 Data Processing and Analysis

The raw primary data collected was encoded for statistical analysis before being loaded into SPSS software. Once coded, the data was then being cleaned to ensure that the collected information is accurate and complete. The prescriptive statistical tools such as Statistical Package for Social Sciences (SPSS) and MS Excel helped the researcher to describe the data. Averages, frequencies and percentages accurately serve this purpose. The presentation of results was in form of graphs and charts using MS Excel. Content data was presented in prose form. The regression equation was:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$: …………………….………………………..….Eq. (3.2)

Whereby; Y represents financial performance

X_1 represent average collection period,

X_2 represent inventory turnover period

X_3 represent average payment period.

Further, β_0 represent the regression intercept, β_1, β_2, β_3 & β_4 represents Regression Coefficients and ε represent Error term normally distributed about a mean of 0 and for purposes of computation ε is assumed to be 0.

3.10 Diagnostic Tests

In order to ensure an unbiased regression model, the researcher must check for any violation in the normality assumptions. They must also establish the degree of significance of the coefficients and look for any collinearity of the variables (Taye, 2018). This will ensure the production of valid results. When running the diagnostic test, the following assumptions should be held.

Exogenous covariates are present and that errors are uncorrelated and homoscedastic. Failure to meet these assumptions will mean that the estimates are biased/inefficient (Suheyli, 2015).

3.10.1 Test for autocorrelation

Biases on standard errors lead to less efficient outcomes when a linear panel regression model has serial correlation. When testing for serial correlation, identification of the assumption of independence of error terms is important. Dependence may arise from how observations have been drawn (Njeru, 2018). A scatterplot of the residuals against the time may be an easy method of identifying any existing dependency. When the residuals appear as scattered randomly around 0, then the data are independent, however, in the event that an obvious pattern arises especially cyclical in nature, then there may be an issue of dependency.

The Durbin-Watson test was appropriate for measuring the autocorrelation due to its ease of implementation on a regression model. The test was run for the purposes of checking for any autocorrelation in the error terms and also the direction of correlation (Kanbiro and Ayneshet, 2019). For instance, any value that may range from 0 to 1.5 implies that a positive autocorrelation exists. Any values that range between 2.5 and 4, reveals that the autocorrelation is negative and 2 indicates no autocorrelation (Ajao and Eghosa, 2018).

3.10.2 Test for Multicollinearity

Multicollinearity occurs when the predictability of an independent variable in a multiple regression model, can be done with a substantial degree of accuracy by one or more independent variables in the same multiple regression model (Taye, 2018). When testing for multicollinearity, the researcher concentrates on severe rather than moderate multicollinearity since the latter does not pose a problem (Kazeem, 2015). Severe multicollinearity may affect the variance of the coefficient estimates thus slight changes to the model may affect the estimates (Berhe and Kaur, 2017). The researcher used the variance inflation factor to measure how multicollinearity within a regression model can affect the dependent and independent variables of the study.

The level to which the variance of a regression estimate rises in the presence of correlation of predictors was checked. A variance inflation factor of 1 represents no factor multicollinearity and between 5 and 10 reveals a high correlation between factors which may be a problem especially if the value exceeds 10 (Njeru, 2018). An assumption of poorly estimated regression coefficients may be thus concluded. For values near 5 or more, the researcher may consider to exclude one of the highly correlated predictors since they only offer redundant

information. The choice of predictor to eliminate may be determined by best subsets regression which reveals the model with highest R-squared value. The researcher may also make use of Partial Least Square Regression method to reduce the number of predictors to a set that is smaller and only includes uncorrelated components.

3.10.3 Test for Heteroscedasticity

Heteroscedasticity occurs when the value of an error term's variance is not consistent (Kazeem, 2015). Presence of biased standard errors will yield test statistics and confidence intervals that are also biased (Taye, 2018). The researcher tested for variability which causes inconsistent estimates by employing the Breusch-Pagan Cook Weisberg test. It is relatively simple to employ. Since models estimated by the use of cross-sectional data frequently encounter heteroscedasticity, it was therefore important to carry out the test.

3.10.4 Test for Normality

Normality is a major assumption in most statistical analysis (Moriya, 2008). Normality of observations is used to visualize the distribution of data or observations. Normally distributed variables should have a mean of zero (Field, 2009). This means that the differences between the model and the observed data should be zero or close zero (Field, 2009). Normality of observations of the dependent variable is often assumed without any empirical test or evidence but it is critical in many statistical methods. Normality of distribution can be tested graphically or numerically (Park, 2008). This study tested normality of the data using the Shapiro-Wilk Method.

IV.   Research Findings And Discussions

4.1 Introduction

This chapter presents research findings and discussions of the study. The study findings are presented to establish the working capital management and financial performance of petroleum firms in Kenya. The data was gathered exclusively from the questionnaires as the research instrument. The questionnaires were designed in line with the objectives of the study. Descriptive statistics and inferential statistics were obtained from the data gathered from the questionnaires.

4.2 Response Rate

The study used a sample of 232(100%) members of staff currently working at petroleum firms of Nairobi City County in Kenya. All respondents selected were issued with questionnaires for data collection but the researcher was able to receive questionnaires having been dully filled. As presented in Table 4.1, the response rate was 218(94%) According to Mugenda and Mugenda, a response rate of 50% and above is adequate for analysis and reporting, that of 60% and above is good while that of 70% and above is excellent. Based on Mugenda's assertions, our response rate of 218 questionnaires was considered excellent and was used for further analysis and reporting.

Table 4.1: Response Rate

Questionnaires	Frequency	Percentage
No of questionnaire Issued	232	100%
Questionnaire's filled	218	94%

As shown in the table three, the response rate was high (232)100% questionnaires were   issued out and 218 (94%) were successfully filled up and returned which was adequate for further analysis and reporting.

4.2 Pilot Test

According to Singpurwalla (2013), conducting a pre-test enables a researcher to assess the validity of data extraction tool through elimination or ambiguous questions. A pilot survey of 23 respondents comprising of 10% of the sample size was carried out to test the reliability and validity of the research instrument intended to be used in the research study. Pre-testing and validation of the data collection tool was ensured by conducting a pilot test. The study used Cronbach alpha methodology which is based on internal consistency. The correlation of items and their average measurability is determined by computing Cronbach alpha. Reliability of the questionnaire was assessed using the data collected from the pilot test

4.2.1 Reliability Test

The data collected from the pilot study was not used in the final analysis. Table 4.1 shows the reliability results. From the findings, Financial Performance had a Cronbach's alpha of 0.864, average collection period had a Cronbach's alpha of 0.782, inventory turnover period had a Cronbach alpha of 0.864 and average payment period had a Cronbach's alpha of 0.870. These findings clearly show that the questionnaire was reliable and no amendments were required. These results are in line with the arguments of Kothari (2014) who stated that an alpha value which is greater than or equal to 0.7 indicate acceptable reliability.

Table 4.2: Reliability Analysis

Variable	Cronbach's Alpha	Number of items	Interpretation
Financial Performance	0.864	6	Excellent
average collection period	0.782	6	Excellent
inventory turnover period	0.864	6	Excellent
average payment period	0.870	6	Excellent

4.2.2 Validity Test
According to Cooper and Schindler (2015), validity can be achieved by pre-testing the instrument to be used through the identification and changing of any irrelevant, ambiguous, awkward, or offensive questions and technique. This study tested content validity and face validity.

Content validity normally depends on the professionals' judgment in the area of study since there is a numerical test to assess whether a given measure sufficiently represents a construct or sufficiently covers the content area. The researcher sought the supervisor's opinion to improve content validity. On the other hand, this study improved the face validity of research tools by conducting a pre-test and also ensuring clarity of all unclear and ambiguous questions.

4.3 Background Information
The background information of the respondents comprised of gender, age bracket, period of time in the company, the highest level of academic qualification and designation of the respondents.

4.3.1 Gender of the Respondents
The respondents were requested to indicate their gender. The results were as shown in Table 4.3. From the results, 134 (62%) of the respondents were male while 84(38%) were female. This implies that most of the respondents were male. It can be concluded that majority of management level staff at major petroleum companies that operate retail outlets in in Kenya are male.

Table 4.3: Gender of the Respondents

Gender	Frequency	Percentage
Male	134	62
Female	84	38
Total	218	100

4.3.2 Age Bracket of the Respondents
The respondents were requested to indicate their age bracket. The results were as shown in Table 4.4. From the results, 36-40 years (28%) of the respond were below forty years, 45years (21%) were above years, 41-45 years (16%) were below 45years, below thirty years 26-30 years, (14%) while 31-35 years (12%) indicated less than 25 years (9%) as the age bracket. This implies that most of the respondents were aged between 36 years and 40 years.

Table 4.4: Age Bracket of the Respondents

Age Bracket	Frequency	Valid Percent
Below 25 years	20	9
26-30 years	31	14
31-35 years	26	12
36-40 years	62	28
41-45 years	35	16
	44	21
Above 45 years		
Total	**218**	**100.0**

4.3.3 Period of Time Working in the Company
The respondents were further requested to indicate the period of time they had been working in their company. The results were as shown in Table 4.5. From the results, 86 (39%)of the respondents indicated that they had been in their company for 6-10 years, (46) (22%)of the respondents indicated 11-15 years, (44) (20%) indicated less than 5 years while (42) (19) % indicated 15 years and above. This implies that most of the respondents had been working in their company for 6- 10 years.

Table 4.5: Period of Time Working in the Company

Work experience	Frequency	Valid Percent
Below 5 years	44	20
6-10 years	86	39
11-15 years	46	22
Above 15 years	42	19
Total	**218**	**100**

4.3.4 Highest Level of Education
As part of the background information the respondents were requested to indicate their highest level of education.
The results were as depicted in Table 4.6. From the results, (95)43% of the respondents indicated undergraduate degree as their highest level of education, 46(21%) indicated diploma, 42 (19%) of the respondents indicated masters while 37(17%) of the respondents indicated PhD as their highest level of education. This implies that most of the respondents had bachelor's degree as their highest level of education.

Table 4.6: Highest level of Education attained

Highest education level	Frequency	Valid Percent
Diploma Level	44	21
Undergraduate Level	95	43
Masters level	42	19
PhD level	37	17
Total	**218**	**100**

4.3.5 Respondents Designation
The respondents were further requested to indicate their designation. The results were as shown in Table 4.7. From the results, 57(26%) of the respondents indicated technical staff. Further, 55(25%) of the respondents indicated assistant manager,51(23%) indicated departmental heads,26(12%) of the respondents indicated supervisors,18(8%) indicated unit heads while 13(6%) indicated executive staff. This implies that most of the respondents were assistant managers and technical personnel

Table 4.7: Respondents Designation

Designation	Frequency	Valid Percent
Executive	13	6
Unit Head	18	8
Supervisor	24	12
Department Head	51	23
Assistant Manager	55	25
Technical Personnel	57	26
Total	218	**100**

4.4 Descriptive Statistics Analysis
This study used descriptive statistics with the help of Statistical Package for Social Sciences to analyze the study variables.

4.4.1 Descriptive statistics for Average Collection Period
The first specific objective of the study was to determine the influence of average collection period on financial performance of petroleum firms in Kenya. The respondents were requested to indicate the extent to which average collection period influence the financial performance of the company. The results were as shown in Table 4.8. From the results, 86(39%) of the respondents indicated that average collection period influence the financial performance of the company to a great extent, 62(28%) indicated very great extent, 31(14%) indicated moderate extent, 24(11%) indicated little extent while 18(8%) indicate no extent at all. This implies that average collection period influences the financial performance of the company to a great extent. This is in line with the findings of Hrishikes (2015) that credit strategy choices are essential for an incorporated methodology, and interface effectively with creation, promoting and fund elements of a venture.

Table 4.8: Average Collection Period

Extent	Frequency	Percentage
No extent	16	8
Little extent	24	11
Moderate extent	31	14
Great extent	86	39
Very great extent	62	28
Total	**218**	**100**

The respondents were further requested to indicate their level of agreement on various statements relating to average collection period and the financial performance of the company. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutrals, 4 symbolized agree and 5 symbolized strongly agree.
The results were as presented in Table 4.9. From the results, the respondents agreed that credit standards reduce investment in accounts receivable and thus lowered sales and profit. This is shown by a mean of 3.951 (std. dv = 0.062). In addition, the participants agreed that the functions of appropriate collection and monitoring system

lead to maximizing the value of the firm. This statement is supported by a mean of 3.744 (std. dv = 0.153). As shown by a mean of 3.717 (std. dv = 0.158), the respondents agreed that managing the credit available in working capital affects the financial outcomes in the petroleum companies. This agrees with San and Heng (2011) that setting credit measures empowers successful administration of credit and records receivable procedure. The respondents agreed with the statement indicating that credit sales affect performance. This is supported by a mean of 3.634 (std. dv = 0.480).

In addition, the participants agreed that receiving, processing and collecting payments bears great impact on the financial performance of this Company. This statement is supported by a mean of 3.537 (std. dv = 0.328). As shown by a mean of 3.572 (std. dv = 0.159), the respondents agreed that trade receivables influence organization performance. This is in line with Hrishikes (2012) that loosened up credit gauges by and large return expanded deals and extra benefits, while fixed credit guidelines decrease interest in money due and in this manner brought down deals and benefit which is responsible for improving company performance.

Table 4.9: Descriptive Statistics for Average Collection Period

	1	2	3	4	5	Mean	Std. Dev.
1. Managing the credit available in working capital affects the financial outcomes in the petroleum companies	6.9	6.8	22.8	34.5	29.0	3.717	0.158
2. Receiving, processing and collecting payments bears great impact on the financial performance of this Company	11.7	12.4	13.8	34.5	27.6	3.537	0.328
3. Credit standards reduce investment in accounts receivable and thus lowered sales and profit	4.1	4.1	21.4	33.1	37.2	3.951	0.062
4. Trade receivables influence organization performance	4.8	15.9	20.7	34.5	24.1	3.572	0.159
5. The functions of appropriate collection and monitoring system leads to maximizing the value of the firm	5.5	8.3	24.1	30.3	31.7	3.744	0.153
6. Credit sales affect performance	15.9	11.0	5.5	29.0	38.6	3.634	0.480

4.4.2 Descriptive Statistics for Inventory Turnover Period

The second specific objective of the study was to determine the influence of inventory turnover period on financial performance of petroleum firms in Kenya.

The respondents were requested to indicate the extent to which inventory turnover period influence the financial performance of the company. The results were as shown in Table 4.10. From the results, 81(37%) of the respondents indicated that inventory turnover period influences the financial performance of the company to a great extent, 62(28%) indicated very great extent, 29(13%) indicated moderate extent, 26(12%) indicated little extent while 22(10%) indicate no extent at all. This implies that inventory turnover period influences the financial performance of the company to a great extent.

This is in agreement with Brooks (2013) that the reason why companies are striving to maintain optimum inventory levels is to avoid potential significant losses in asset values and to increase firm profitability.

Table 4.10: Inventory turnover Period

Extent	Frequency	Percentage
No extent	22	10
Little extent	26	12
Moderate extent	29	13
Great extent	81	37
Very great extent	60	28
Total	**218**	**100**

The respondents were further requested to indicate their level of agreement on various statements relating to inventory turnover period and the financial performance of the company. The results were as presented in Table 4.11. From the results, the respondents agreed that amount of stock held by the organization influences performance. This is shown by a mean of 3.855 (std. dv = 0.073). In addition, the participants agreed that the cost of sales influences the general performance of the firm.

This statement is supported by a mean of 3.841 (std. dv = 0.116). As shown by a mean of 3.717 (std. dv = 0.305), the respondents agreed that inventory turnover has a positive relationship with return on asset and net profitability margin ratio. The respondents agreed that inventory turnover talks about, how many times, the production department converts the raw material into finished goods. This is supported by a mean of 3.710 (std. dv = 0.105). In addition, the participants agreed that improved inventory turnover leads to efficiency that reflects on the financial performance.

This statement is supported by a mean of 3.655 (std. dv = 0.981). As shown by a mean of 3.620 (std. dv = 0.285), the respondents agreed that there exists negative relationship between inventory turnover and net profit margin ratio The findings concur with Eroglu and Hofer (2011) who contend that stock leanness is the best stock administration instrument.

In the context of possible spoilage, obsolescence and storage costs, too much stock causes additional costs the study agrees with Kolias et al. (2011) that companies are striving to maintain optimum inventory levels to avoid potential significant losses in asset values and to increase firm profitability. The smaller level of inventory needed to support the firm's sales, the quicker the entire capital overturn

Table 4.11: Descriptive statistics for Inventory Turnover Period

	1	2	3	4	5	Mean	Std. Dev.
1. Inventory turnover tells about, how many times, the production department converts the raw material into finished goods	6.9	9.0	11.0	52.4	20.7	3.710	0.105
2. There exist negative relationship between inventory turnover and net profit margin ratio	8.3	13.8	17.2	29.0	31.7	3.620	0.285
3. Inventory turnover has a positive relationship with return on asset and net profitability margin ratio	9.7	12.4	7.6	37.2	33.1	3.717	0.305
4. Improved inventory turnover leads to efficiency that reflects on the financial performance	2.8	9.0	27.6	41.4	19.3	3.655	0.981
5. Amount of stock held by the organization influences performance	5.5	4.1	20.0	40.0	30.3	3.855	0.073
6. Cost of sales influences the general performance of the firm	4.1	5.5	29.7	23.4	37.2	3.841	0.116

4.4.3 Descriptive statistics for Average Payment Period

The third specific objective of the study was to determine the influence of average payment period on financial performance of petroleum firms in Nairobi County.

The respondents were requested to indicate the extent to which average payment period influence the financial performance of the company. The results were as shown in Figure 4.5. From the results, 39% (86) of the respondents indicated that average payment period influence the financial performance of the company to a great extent, 23%(51) indicated very great extent, 17%(37) indicated moderate extent, 14%(31) indicated little extent while 7%(15) indicate no extent at all. This implies that average payment period influences the financial performance of the company to a great extent. This is in line with the findings of Berk, (2014) that an association's refined records payable cycle would upgrade the association's future income figures and along these lines causes the firm to improve its liquidity and fortify its WC.

Table 4.12: Average Payment Period

Extent	Frequency	Percentage
No extent	15	7
Little extent	31	14
Moderate extent	37	17
Great extent	84	39
Very great extent	51	23
Total	**218**	**100**

The respondents were further requested to indicate their level of agreement on various statements relating to inventory turnover period and the financial performance of the company. The results were as presented in Table 4.13 From the results, the respondents agreed that total supplier purchase influence organization performance. This is shown by a mean of 3.751 (std. dv = 0.227). In addition, the participants agreed that average payment period maintains optimal balance between each of the accounts receivables components. This statement is supported by a mean of 3.758 (std. dv = 0.113).

As shown by a mean of 3.641 (std. dv = 0.322), the respondents agreed that refined accounts payable process would enhance the firm's future cash flow forecasts. The respondents agreed that average payables influence the general performance of the organization. This is supported by a mean of 3.606 (std. dv = 0.062). In addition, the participants agreed that time period of supplier's payment affects the overall financial performance of the company.

This statement is supported by a mean of 3.551 (std. dv = 0.201). As shown by a mean of 3.517 (std. dv = 0.161), the respondents agreed that Average payment period increases profitability by reducing the number of accounts receivable. The study findings are in agreement with Sharma and Kumar (2011) that firms follow systems like extending the records payable to decrease the immediate expense of exchange credit as it stretches the time that a structure has utilization of assets. Also, according to Deloof (2013), control of records receivables which targets keeping up an ideal harmony between every one of the records receivables segments, that is, money, receivables, stock and payables is a key piece of the general corporate procedure to make esteem and is a significant wellspring of upper hand in organizations. Makori and Jagongo's (2013) found positive connection among productivity and number of long stretches of stock and number of day's payable which concurs to the findings of our present study.

Table 4.13: Descriptive statistics for Average Payment Period

	1	2	3	4	5	Mean	Std. Dev.
1. Refined accounts payable process would enhance the firm's future cash flow forecasts	15.2	11.0	6.2	49.7	17.9	3.641	0.322
2. Average payment period maintains optimal balance between each of the accounts receivables components	5.5	8.3	18.6	40.0	27.6	3.758	0.113
3. Average payment period increases profitability by reducing the number of accounts receivable	2.8	25.5	9.7	41.4	20.7	3.517	0.161
4. Time period of supplier's payment affects the overall financial performance of this company	8.3	13.8	13.1	44.1	20.7	3.551	0.201
5. Average payables influence the general performance of the organization	4.1	9.7	29.7	34.5	22.1	3.606	0.062
6. Total supplier purchase influence organization performance	8.3	7.6	17.9	33.1	33.1	3.751	0.227

4.5 Diagnostic Test

In order to ensure an unbiased regression model, the researcher must check for any violation in the normality assumptions. They must also establish the degree of significance of the coefficients and look for any collinearity of the variables (Taye, 2018). This will ensure the production of valid results.

4.5.1 Multicollinearity

Multicollinearity is used to determine the probability that independent variables (which are equal or greater than 2) in a particular multivariate regression model are highly or significantly correlated.

This would mean that one variable can be predicted from the other (Singparwalla, 2013). In case the correlations among the independent variables are quite strong; the standard error of the coefficients tends to increase thus leading to undesirable events. The study adopted the use of Variance Inflation Factor (VIF) so as to measure the level of correlation among the variables. The general principle is that VIF which is greater than ten (10) tend to warrant further investigation.

The VIF, as shown in Table 4.14, indicates that multicollinearity was absent among the independent variables, since the VIF values were below 10 which is the acceptable below which indicates absence of multicollinearity. The results show the independent variables had variance inflation factor less than 10 which was an indication of non- existence of multicollinearity. This implies that the independent variables are not highly correlated among themselves.

Table 4.14: Multicollinearity Test

Model	Tolerance	VIF
Financial performance	.836	1.196
Average collection period	.832	1.202
Inventory turnover period	.937	1.067
Average Payment Period	.878	1.139

4.5.2 Homoscedastic Test Results

One of the assumptions of linear regression analysis tested in this study was homoscedasticity; this implies that the error terms along the regression line were equal. According to Barley (2009), the violation of homoscedasticity makes it difficult to gauge the true standard deviation of the forecast errors, usually resulting in confidence intervals that are too wide or too narrow. Particularly, if there is increase in the variance of the error term over time, confidence intervals for out-of-sample predictions will tend to be unrealistically narrow. In that case, homoscedasticity may also have the effect of giving too much weight to a small subset of the data (namely the subset where the error variance was largest) when estimating coefficients.

Thus, to prevent such scenario when conducting a research, it is expedient to test for homoscedasticity before carrying out a regression analysis. Therefore, this study tested the null hypothesis that the data collected was homoscedastic in variance using Breusch pagan test. The result of the test presented in table 4.15 revealed that the test statistics was 195.234 while the p-value was 1 indicating that the data collected was not heteroscedasticity in variance and thus necessitating the acceptance of null hypothesis that the data collected was homoscedastic in variance and can be relied on for regression analysis.

Table 4.15: Breusch Pagan Test

Test Statistics	Degree of Freedom	P-Value
195.234	3	1.000

4.5.3 Autocorrelation Test

Durbin Watson Statistic was conducted to test for autocorrelation in the data before accepting it for regression analysis. According to Kothari, (2004), Autocorrelation occurs when the residuals are not independent from each other. In other words, when the value of y(x+1) is not independent from the value of y(x). Therefore, the null hypothesis that there was no autocorrelation in the data collected for this study was tested with use of Durbin Watson Statistics. The results that the Durbin Watson Statistics for lag 1 was 1.717 which was between the two critical values 1.5<d<2.5 Therefore the null hypothesis which stated that there was no autocorrelation in the data was rejected. This implies that the residuals were independent from each other. Similarly, the result satisfied the rule of thumb which states that values of 1.5 < d < 2.5 show that there is no autocorrelation in the data (Barley, 2014).

Table 4.16: Autocorrelation

Test statistic	Range	Remarks
1.71	1.5<d<2.5	No autocorrelation

4.5.4 Normality Test

Shapiro-Wilk test was used to test the normality of data. Null hypothesis in Shapiro–Wilk test indicate that variables data are obtained from a normally distributed population (Cooper & Schilndler, 2006). Therefore, the p-value should be greater than the significant level of 0.05. According to the findings, as shown in Table 4.21 the respective p-values were financial performance (p value=0.061), average collection period (p value=0.115), inventory turnover period (p value=0.097), and average payment period (p value=0.101). All the p-values are above the predetermined p-value significance threshold of 0.05 and therefore we do not reject the null hypothesis that the sample data were obtained from a normally distributed population. This implies that the data for all the variables were normally distributed.

Table 4.17: Tests of Normality

	Statistic	df	Sig.
Financial performance	.969	220	.061
Average collection period	.987	220	.115
Inventory turnover period	.981	220	.097
Average Payment Period	.985	220	.101

4.6 Correlation Analysis

This research adopted Pearson correlation analysis to determine how the dependent variable (financial performance of petroleum firms in Nairobi County) relates with the independent variables (average collection period, inventory turnover period and average payment period).

Table 4.18: Correlation Coefficients

		Financial Performance	Average collection period	Inventory turnover period	Average payment period
Financial Performance	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	220			
Average collection period	Pearson Correlation	.853**	1		
	Sig. (2-tailed)	.000			
	N	220	220		
Inventory turnover period	Pearson Correlation	.780**	.281	1	
	Sig. (2-tailed)	.000	.081		
	N	220	220	220	
Average payment period	Pearson Correlation	.795**	.199	.180	1
	Sig. (2-tailed)	.000	.089	.089	
	N	220	220	220	220

**. Correlation is significant at the 0.01 level (2-tailed).

From the results, there was a very strong relationship between average collection period and financial performance of petroleum firms in Kenya (r = 0.853, p value =0.000). The relationship was significant since the

p value 0.000 was less than 0.05 (significant level). In addition, the results revealed that there is a very strong relationship between inventory turnover period and financial performance of petroleum firms in Kenya (r = 0.780, p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level).

The findings conform to the findings of Siddhartha *et al.* (2011) that there is a very strong relationship between inventory turnover period and financial performance of petroleum firms. Further, the results revealed that there is a very strong relationship between average payment period and financial performance of petroleum firms in Nairobi county (r = 0.795, p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the findings of Mangundjay *et al.* (2015) that there is a very strong relationship between average payment period and financial performance of petroleum firms.

4.7 Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (average collection period, inventory turnover period and average payment period) and the dependent variable (financial performance of petroleum firms in Nairobi County)

Table 4.19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925	.856	.847	.01476

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.847. This implied that 84.7% of the variation in the dependent variable (financial performance of petroleum firms in Kenya) could be explained by independent variables (average collection period, inventory turnover period and average payment period).

Table 4.20: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	337.3	3	112.435	111.987	.000
	Residual	216.9	216	1.004		
	Total	554.2	219			

The ANOVA was used to determine whether the model was a good fit for the data. This is evidenced by the P-value of 0.000 < 0.05. Also, the significance of the model is supported by F-calculated value (111.987) greater than the F-critical value, obtained from the f-critical table (2.646). Therefore, the model can be used to predict the influence of average collection period, inventory turnover period and average payment period on financial performance of petroleum firms in Kenya.

Table 4.21: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.259	0.088		2.943	0.005
	Average collection period	0.298	0.076	0.77	3.921	0.003
	Inventory turnover period	0.351	0.09	0.08	3.900	0.002
	Average payment period	0.342	0.078	0.77	4.385	0.000

The regression model was as follows:

$Y = 0.259 + 0.298X_1 + 0.351X_2 + 0.342X_3$…………………………Eq. (4.1)

From the results, average collection period has a significant effect on the financial performance of petroleum firms in Kenya (X_1=0.298, p value= 0.003).

The relationship was considered significant since the p value 0.003 was less than the significant level of 0.05 The results also revealed that inventory turnover period has significant effect on the financial performance of petroleum firms in Kenya (X_2=0.351, p value= 0.002). The relationship was considered significant since the p value 0.002 was less than the significant level of 0.05. The findings are in line with the findings of Siddhartha *et al.* (2011) that there is a very strong relationship between inventory turnover period and the financial performance of petroleum firms.

Furthermore, the results revealed that average payment period has significant effect on the financial performance of petroleum firms in Nairobi county (X_3=0.342, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings are in line with the

findings of Mangundjaya *et al.* (2015) that there is a very strong relationship between average payment period and the financial performance of petroleum firms in Nairobi county.

4.8 HYPOTHESIS RESULT
H_{01}: There is no relationship between average collection period and financial performance of petroleum firms in Nairobi City County
H_{02}: There exist no relationship between inventory turnover period and financial performance of petroleum firms in Nairobi City County
H_{03}: There exists no statistically significance relationship between average payment period and financial performance of petroleum firms in Nairobi City County

Table 4.22 Hypothesis Test Result

HYPOTHESIS	RESULTS
H_{01}	Reject H_{01}
H_{02}	Reject H_{02}
H_{03}	Reject H_{03}

V. Summary, Conclusions And Recommendations

5.1 Introduction
This chapter presents the summary of key findings, conclusions drawn from the findings highlighted and recommendations made there-to. The conclusions and recommendations drawn focused on addressing the objective of the study. The study focuses on the discussion of summary of the research findings, conclusion and recommendations. The general objective of this study was to determine the influence of working capital management on financial performance of petroleum firms in Nairobi county. Specifically, the study sought to determine the influence of petroleum average collection period on financial performance of petroleum firms in Nairobi county; investigate the effect of inventory turnover period on financial performance of firms in Nairobi county and to determine the influence of average payment period on financial performance of petroleum firms in Nairobi city county.

5.2 Summary of Findings
This section discusses the summary of findings regarding the objectives of the study. The section therefore discusses the summary of the findings pertaining to the working capital management (average collection period, inventory turnover period and average payment period) on financial performance of petroleum firms in Nairobi City county.

5.2.1 Average Collection Period and Financial Performance of Petroleum Firms
The study found that average collection period has a positive and significant effect on the financial performance of petroleum firms in Nairobi City County. From the results, the respondents agreed that credit standards reduce investment in accounts receivable and thus lowered sales and profit. In addition, the participants agreed that the functions of appropriate collection and monitoring system lead to maximizing the value of the firm. The respondents agreed that managing the credit available in working capital affects the financial outcomes in the petroleum companies.

The respondents agreed with the statement indicating that credit sales affect performance of the firms. Receiving, processing and collecting payments bears great impact on the financial performance of this Company. The respondents agreed that trade receivables influence organization performance.

5.2.2 Inventory Turnover Period and Financial Performance of Petroleum Firms
The study found that inventory turnover period has a positive and significant effect on the financial performance of petroleum firms in Nairobi city county. From the results, the respondents agreed that amount of stock held by the organization influences performance. In addition, the participants agreed that the cost of sales influences the general performance of the firm. The respondents agreed that inventory turnover has a positive relationship with return on asset and net profitability margin ratio. The respondents agreed that inventory turnover tells about, how many times, the production department converts the raw material into finished goods. In addition, the participants agreed that improved inventory turnover leads to efficiency that reflects on the financial performance. The respondents agreed that there exists negative relationship between inventory turnover and net profit margin ratio.

5.2.3 Average Payment Period and Financial Performance of Petroleum Firms
The study found that average payment period has a positive and significant effect on the financial performance of petroleum firms in Kenya from the results, the respondents agreed that total supplier purchase influence organization performance. In addition, the participants agreed that average payment period maintains optimal balance between each of the accounts receivables components. The respondents agreed that refined accounts payable process would enhance the firm's future cash flow forecasts. The respondents agreed that average

payables influence the general performance of the organization in addition, the participants agreed that time period of supplier 's payment affects the overall financial performance of the company, the respondents agreed that Average payment period increases profitability by reducing the number of accounts receivable.

5.3 Conclusions of the study
The study concludes that average collection period has a positive and significant effect on the financial performance of petroleum firms in Nairobi City county. In addition, the study found that average collection period (total net credit sales, number of days in the period and trade receivables) influence the financial performance of petroleum firms in Nairobi city county. This implies that improvement in average collection period (total net credit sales, number of days in the period and trade receivables) would facilitate the financial performance of petroleum firms.

The study concludes that inventory turnover period has a positive and significant effect on the financial performance of petroleum firms in Kenya. The study also found that inventory turnover period (amount of inventory, cost of sales and number of days in the period) influence the financial performance of petroleum firms in Nairobi city county. This implies that improvement in inventory turnover period (amount of inventory, cost of sales and number of days in the period) would facilitate the financial performance of petroleum firms.

Further, the study concludes that average payment period has a positive and significant effect on the financial performance of petroleum firms in Nairobi City County. The study found that average payment period (total supplier purchase, average payables and number of days in the period) influence the financial performance of petroleum firms in Nairobi City County. This implies that improvement in average payment period (total supplier purchase, average payables and number of days in the period) would facilitate the financial performance of petroleum firms.

5.4 Recommendations of the study
The study findings revealed that average collection period affects the financial performance of petroleum firms. This study therefore recommends that the top management of petroleum firms in Nairobi City County should formulate and implement strategies for ensuring minimum collection period; in addition, the study found that that inventory turnover period affects the financial performance of petroleum firms.

This study therefore recommends that the top management of petroleum firms in Nairobi City County should formulate and implement strategies for increasing the rate of inventory turnover. Further, the study found that that average payment period affects the financial performance of petroleum firms. This study therefore recommends that the top management of petroleum firms in Nairobi City County should formulate and implement strategies for increasing minimum payment period by suppliers so as to increase financial performance of the firms.

5.5 Suggestions for Further Studies
This study focused on the working capital management on financial performance of petroleum firms in Kenya. Having been limited to petroleum firms in Nairobi city county, the findings of this study cannot be generalized to other firms in Kenya. The study therefore suggests further studies on the working capital management on financial performance of other firms in Kenya. Further, the study found that the independent variables (average collection period, inventory turnover period and average payment period) had a strong influence on the performance of petroleum firms in Nairobi City County. This study therefore suggests research on other factors affecting financial performance of petroleum firms in Kenya.

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APPENDICES
Appendix I: Research Questionnaire
INTRODUCTION
Please read the questions carefully and feel free to respond to them by giving your res ponse by ticking (√) whichever option best describes you or applies to you. This quest onnaire consists of two major sections (Sections A and B) The information given here will only be used for academic purposes and will be treated with utmost confidentiality. Your cooperation will be highly appreciated.

SECTION A: BACKGROUND INFORMATION
1. Identify your gender
Male   [ ]   Female   [ ]
2. What is your age bracket?
25 years or less [ ]   26-30   [ ]   31-35   [ ]
36-40   [ ]   41-45   [ ]   Above 45   [ ]
3. What is your work experience (in years) in this petroleum Company?
    0-5 yrs.   [ ]   5-10 yrs.   [ ]
    10-15 yrs.   [ ]   Over 15 yrs.   [ ]
4. What is your highest level of education?
Diploma   [ ]   Bachelor's Degree   [ ]
Postgraduate   [ ]   Others(Specify....................)   [ ]
5. What is your designation?
Senior/executive   [ ]   Unit Head   [ ]   Supervisor
    [ ]   Departmental Head   [ ]

Assistant manager   [   ]   Technical personnel   [   ]
Other……………………   [   ]

SECTION B: WORKING CAPITAL AND FINANCIAL PERFORMANCE

Average Collection Period and Financial Performance of Petroleum Companies

1.   To what extent does average collection period influence the financial performanceof the company? Tick that apply…

To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent

2.   What is your level of agreement with the following statements regarding the influence of average collection period on the financial performance of petroleum companies?   Use a scale of 1 to 5 where 1- Strongly Disagree, 2- Disagree, 3- Netral, 4- Agree, 5- Strongly Agree

Statements regarding influence of average collection period	1	2	3	4	5
Managing the credit available in working capital affects the financial outcomes in the petroleum companies					
Receiving, processing and collecting payments bears great impact on the financial performance of this Company					
Credit standards reduce investment in accounts receivable and thus lowered sales and profit					
The functions of appropriate collection and monitoring system leads to maximizing the value of the firm					
Credit sales affect performance					
Trade receivables influence organization performance					

Inventory Turnover Period and Financial Performance of Petroleum Companies

3.   To what extent does inventory turnover period influence the financial performance of the company?

To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent

4.   Please rate your level of agreement with the following statements about inventory turnover period and the financial performance of petroleum companies? Use a scale of 1 to 5 where 1- Strongly Disagree,2- Disagree, 3- Neutral, 4- Agree, 5- Strongly Agree

Statements regarding influence of inventory turnover period	1	2	3	4	5
Inventory turnover tells about, how many times, the production department converts the raw material into finished goods					
There exist negative relationship between inventory turnover and net profit margin ratio					
Inventory turnover has a positive relationship with return on asset and net profitability margin ratio					
Improved inventory turnover leads to efficiency that reflects on the financial performance					
Amount of stock held by the organization influences performance					
Cost of sales influences the general performance of the firm					

Average Payment Period and Financial Performance of Petroleum Companies

5.   To what extent does average payment period influence the financial performance of the company?

To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent

6.   What is your level of agreement with the following statements regarding the influence of average payment period on the financial performance of petroleum companies? Use a scale of 1 to 5 where 1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly Agree

Statements regarding influence of average payment period	1	2	3	4	5
Refined accounts payable process would enhance the firm's future cash flow fore casts					
Average payment period maintains optimal balance between each of the accounts receivables components					
Average payment period increases profitability by reducing the number of accounts receivable					
Time period of supplier 's payment affects the overall financial performance of this company					
Average payables influence the general performance of the organization					
Total supplier purchase influence organization performance					

Financial Performance of Petroleum Firms in Kenya
1.   Please indicate your agreement level with various statements relating to financial performance of petroleum firms in Kenya

Statement	1	2	3	4	5
The performance of petroleum firms has been increasing over the years					
Am satisfied with the level of performance in petroleum firms					
Return on assets has been increasing over the years					
The firm is in a position to clear its current liabilities with its current assets					
There is frequent cash flow in our firm					
Our firm has a high market share					

Thank you for participation.

Appendix II: List of Petroleum Firms
1.   Total Kenya Limited
2.   VIVO Energy Kenya Limited
3.   Hashi Energy Limited
4.   Gulf Energy Limited
5.   Libya Oil Kenya Limited
6.   Gapco Kenya Limited
7.   Regnol Oil Kenya Limited
8.   Petro Oil Limited
9.   Shell Petroleum
10.   National Oil Corporation of Kenya Limited

Source; PIEA 2019