

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

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Abstract:

Background: This study on the working capital management and the financial performance of petroleum firms in Nairobi County 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 County. The study employed descriptive research design. This study focused on 10 petroleum companies operating in Nairobi County. The target population was therefore 547 management staffs from the major petroleum firms. 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. 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 in Nairobi County should formulate and implement strategies for ensuring minimum collection period and increasing the rate of inventory turnover period in the top management of petroleum firms.

Key Word: Working Capital Management, Financial Performance, Average Collection Period, Inventory Turnover Period, Average Payment Period, Petroleum Firms

Date of Submission: 07-08-2021

Date of Acceptance: 21-08-2021

I. Introduction

Financial performance is the determination of how well firms use their assets from their core operations and generates 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 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 judgments 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.

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 practices 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

Statement of the Problem

All organizations 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. Business interests in operational resources are among the crucial choices endowed on the financial executives for guaranteeing benefit amplification. This is on the grounds that working capital management influence productivity and danger of the associations. 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.

Various studies have been conducted on working capital management and financial performance. For instance, Koliias et al. (2016) conducted a study on the influence of working capital management on financial performance of supermarket chains, 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 and Deloof (2016) conducted a study on the influence of working capital management on the financial performance of listed 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.

Objectives of the Study

- i) To determine the influence of average collection period on financial performance of petroleum firms in Nairobi City County.
- ii) To evaluate the influence 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.

Hypotheses of the Study

- i) **H₀₁**: There is no relationship between average collection period and financial performance of petroleum firms in Nairobi City County.
- ii) **H₀₂**: There exist no relationship between inventory turnover period and financial performance of petroleum firms in Nairobi City County.
- iii) **H₀₃**: There exists no statistically significance relationship between average payment period and financial performance of petroleum firms in Nairobi City County.

II. Literature Review

Theoretical Framework

Cash Conversion Cycle (CCC) 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).

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; $CCC = \text{Inventory days} + \text{Trade receivables days} - \text{Trade payables days}$ 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.

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 accounts 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.

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.

Conceptual Review

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. The figure below represents the variables the study investigated and their assumed relationship.

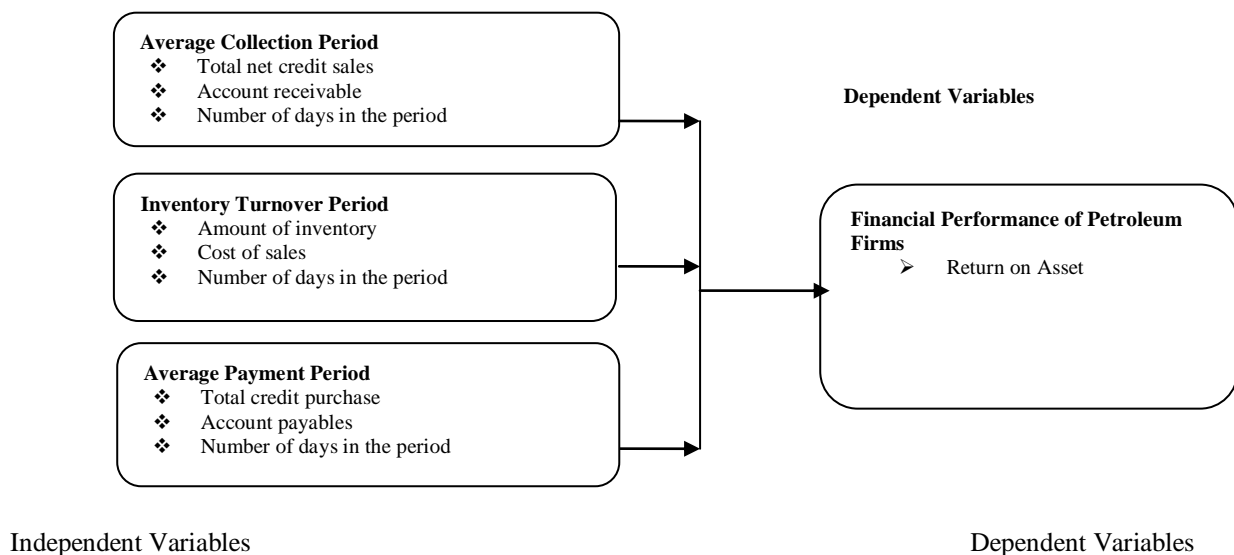


Figure 1.0: Conceptual Framework

Empirical Review

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 (Hrshikes, 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 Hrshikes (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 (Hrshikes, 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 (Hrshikes, 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.

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 overturn. 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's 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.

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. .

III. Material And Methods

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. 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 ten companies focused on had a total of 547 management staffs from the major petroleum firms with a market share of above 3%. From the population of 547 management staff, Slovin's formula was used to select 232 using stratified sampling techniques. This study utilized a primary data gathered using research questionnaire as the main primary data collection research instrument. 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. 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. 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. Reliability was achieved using Cronbach Alpha whereby 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. 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.

IV. Result and Discussion

Descriptive Statistics

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

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 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 1.0.

Table 1.0: 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	3.71	0.15
2. Receiving, processing and collecting payments bears great impact on the financial performance of this	11.7	12.4	13.8	34.5	27.6	3.53	0.32

Company							
3. Credit standards reduce investment in accounts receivable and thus lowered sales and profit	4.1	4.1	21.4	33.1	37.2	3.95	0.06
4. Trade receivables influence organization performance	4.8	15.9	20.7	34.5	24.1	3.57	0.15
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	3.74	0.15
6. Credit sales affect performance	15.9	11.0	5.5	29.0	38.6	3.63	0.48

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.

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 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 2.0. 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 Koliyas 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 overturns.

Table 2.0: 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	3.71	0.10
2. There exist negative relationship between inventory turnover and net profit margin ratio	8.3	13.8	17.2	29.0	31.7	3.62	0.28
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	3.71	0.30
4. Improved inventory turnover leads to efficiency that reflects on the financial performance	2.8	9.0	27.6	41.4	19.3	3.65	0.98
5. Amount of stock held by the organization influences	5.5	4.1	20.0	40.0	30.3	3.85	0.07

performance								
6. Cost of sales influences the general performance of the firm	4.1	5.5	29.7	23.4	37.2	3.84	0.11	

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 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 3.0.

Table 3.0: 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

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.

Inferential Statistics

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). The results are presented in Table 4.0.

Table 4.0: Correlation Coefficients

		ACP	ITP	APP
	Pearson Correlation	.853**	.780**	.795**
FP=Financial Performance	Sig. (2-tailed)	.000	.000	.000
	N	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.

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). 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 5.0: Multiple Regression Analysis

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

The regression model was as follows:

$$Y = 0.259 + 0.298X_1 + 0.351X_2 + 0.342X_3$$

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.

V. Conclusion and Recommendations

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.

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.

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Ann Nyambura Ngugi, et. al. "Influence of Working Capital Management on Financial Performance of Petroleum Firms in Nairobi City County, Kenya ." *IOSR Journal of Economics and Finance (IOSR-JEF)*, 12(4), 2021, pp. 70-80.