# EFFECTS OF WORKING CAPITAL MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF EDIBLE OIL PRODUCING COMPANIES IN KENYA

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# EFFECTS OF WORKING CAPITAL MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF EDIBLE OIL PRODUCING COMPANIES IN KENYA

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## ABSTRACT

The purpose of the study was to analyze the effects of working capital management practices on financial performance of edible oil producing companies in Kenya. The study adopted descriptive research design and with a target population of 62 respondents were selected from accounts department, finance department and operations department. Specific research objectives focused on determining the effects of accounts receivable collection on financial performance of edible oil producing companies in Kenya, assessing the effects of inventory turnover on financial performance of edible oil producing companies in Kenya, examining the effect of accounts payable management on financial performance of edible oil producing companies in Kenya and assessing the impact of cash ratio on the performance of edible oil producing companies in Kenya. The output of the analysis was presented using a statistical summary applied by use of graphs, charts, tables, percentages and multilinear regression while secondary data was obtained from content analysis. Data analysis was done by use of advanced statistical software IBS SPSS version 20 to yield ANOVA. The study findings indicated that working capital management practices and financial performance of edible oil producing companies in Kenya depends on the appropriate and effective accounts receivable collection, inventory turnover, accounts payable management and cash ratio that is in place in the organizations. The study involved an in-depth analysis and outlined correlation between the independent and dependent variables of the study. The independent variables had a positive and significance relationship to the dependent variables. From the analysis there was a positive and significant relationship between financial performance and Accounts Receivable (r=0.230, p value <0.05). Secondly, there was a positive and significant relationship between financial performance and Inventory Turnover (r= 0.410, p value < 0.05). Thirdly, there was a positive and significant relationship between financial performance and Cash Ratio (r= 0.027, p value < 0.05). Lastly there was a positive and significant relationship between financial performance and Accounts payable (r= 0.297, p value < 0.05). The study concludes that inventory turnover and accounts payable should be given a higher priority in the organizations.

**Key Terms:** Account Payable, Account receivable, Cash management, Financial Performance, Inventory management, Medium Enterprise, Profitability

**INTRODUCTION**

Working capital management represents a vibrant tradeoff between current assets and current liabilities to drive supply chain management of a firm's cash flow and profitability (Mahmoodi, 2012). Every company has current asset and current liabilities that defines working capital, current assets are categorized into accounts receivable, cash and cash equivalents, marketable securities, accounts receivable and inventory. While current liabilities include accounts payable, expenses payable, including accrued wages and taxes and notes payable (Burns, 2011). The decision process that is made in the organization revolving around current assets and current liabilities is referred to as working capital management. The management of working capital in the firm directly effects on its profitability, financial growth, liquidity and asset management. This is broadly termed to as capital adequacy, asset quality, management capability, earnings capacity and liquidity CAMEL (Mullins, 2010).

Thus effective management of working capital will incorporate proper planning and controlling of current assets and current liabilities in a way that eliminates possibility of risk or firm not in a position to meet on the short term obligations. According to Stevenson, (2010) argue that working capital is greatly impacted by the movement of company stock also referred to as turnover. This involves trading liquid asset by a firm, the payables and receivables often relate their dues on service or products that is either rendered or received to and by the company. Inventory represents the investment made in stocks. Current asset are in form of value or quantity of raw materials, component, assemblies, consumables, work in progress and finished stock that held for use or sale when need arises. The inventory management is associated with all activities established to guarantee that customers access a specific product or service in the market produced by a company.

The importance of working capital management is reflected in determining success or failure of a firm in business performance due to its impact on liquidity of a firm (Vahid, 2012). The success of a business depends heavily on the ability of financial managers and related decision makers to effectively manage the components of working capital. The ultimate objective of edible oil producing companies is to maximize on the profit. It is indeed challenging that in maintaining working capital management of a firm, appropriate consideration on accounts payables, accounts receivable, cash conversion and inventory turnover should be a top priority of firms in maintaining an optimal level of working capital that maximizes their value (Grablowsky, 2010).

Edible oil processing companies in Kenya form the largest manufacturing base that immensely contributes to economic development. With solid growth continuing in the manufacturing industry, Kenya is poised to be among the fastest-growing economies in East Africa and in the world according to the World Bank Group's economic analysis for the country. In Kenya, manufacturing firms are characterized by elongated or overextended chains of retailers which, in turn, mean long chains of transactions between chain members and consumers (Amoro, 2011).

According to World McMahon, (2011), showed that leading manufacturing firms in Kenya are faced with problems of wrong forecasting due to lack of enough inventory management information and practices. Some of the reputable manufacturing brands in the market have been affected by poor inventory management related cases leading to low performance and uneven distribution of their products in the corners of the country. This has led

to erratic deliveries in the firm, late deliveries and inflexibility hence affecting customer satisfaction in the market Almazari, (2013). Improper or unavailability of integrated inventory management has affected productivity at the manufacturing level of some firms leading to reduced profits margin, high cost of managing inventory, lack of appropriate records and pilferage from the main stream. To sustain growth and increase the contribution of the manufacturing sector to two digits GDP, firms should boost their level of productivity to help the sector regain its competitiveness by managing the inflow and outflow of their inventory.

However, as a share of GDP, Kenya's manufacturing sector has been stagnant in recent years. Low overall productivity and large productivity differences in firms across subsectors point to lack of government willingness to support them and flooding of the market with cheap imports from developed economies like China that dump their products in Kenyan market. Currently there are about 30 edible oil refiners in the country. The larger companies include Bidco oil Refineries which is located in Nairobi, KAPA oil Refineries which is located in Nairobi, and Menengai oil Refiners which located in Nakuru, Pwani oil Products ltd which is based in coastal town of Mombasa, Unilever, latest is Golden Africa Ltd which is based in Nairobi, Diamond industries Ltd which based in Mombasa town, united millers and Gill edible oil. These companies engage in production of cooking edible oils, fats, edible oils, soap and corn edible oil among other edible oil products.

Every business progress relies heavily on the ability of financial managers to effectively manage the components of working capital (Mona, 2012). Private and public companies consider management of working capital in terms of efficiency of cash, inventory and receivables management and the operating cycle (Nyamao, 2012). Improving working

capital management begins with activities such as monitoring expenditures and upcoming debts daily, weekly and monthly and planning in advance how to balance the two. Lowering production costs and maintaining sales revenue increases profits, thus providing more cash for working capital management. According to Lyons and Farrington (2012), states that every firm would want to have sustainable level of tradeoff between current assets and current liabilities. Working capital management is important because of its effect on the firm's profitability and risk, and consequently its value. Investments in current assets represent a very significant position of total assets.

Working capital management is critical to all firms but particularly to small ones because they do not have access to long term financing yet they must finance the current assets.Several studies have been done, in 2010 Muthuva did a study that focused on influence of working capital management on corporate profitability of firms listed at the Nairobi Securities Exchange. Gakure, et al. (2012) on the other hand, analyzed the relationship between working capital management and performance of 15 manufacturing firms listed at the Nairobi Securities Exchange for a period of five years from 2006 to 2010. Makori & Jagongo (2013) conducted a study on the relationship between working capital management and firm profitability. Data was obtained from financial reports for manufacturing and construction firms listed at the Nairobi Securities Exchange for the period ranging between 2003 and 2012. Muathe & Kosimbei (2014) analyzed the effects of working capital management on performance of non-financial firms listed at the Nairobi Securities Exchange for the period 2006-2012.The previous studies conducted on working capital management and financial performance left a knowledge gap in establishing the relationship between working capital management and financial performance of

edible oil producing companies in Kenya. The study thus seeks to bridge the gap by undertaking a study on working capital management with specific consideration to accounts receivable, inventory turnover accounts payable and cash ratio.

## Research Hypothesis

$HO_1$: Accounts receivable collection has no significant effect on financial performance on edible oil producing companies

$HO_2$: Inventory turnover has no significant effect on financial performance on edible oil producing companies

$HO_3$: Accounts payable management has no significant effect on financial performance on edible oil producing companies

$HO_4$: Cash ratio has no significant effect on financial performance on edible oil producing companies

## RELATED LITERATURE

### Theoretical Review

Theoretical review comprises of concept definitions and review of relevant theory in relation to the study topic and objectives. The theoretical review exemplifies an understanding of theories and core concepts that are relevant to the topic of the research that relate it to the broader fields of knowledge in the field of working capital management practices and financial performance. A theoretical review was used to limit the scope of the relevant data by focusing on specific variables and defining the specific viewpoint (framework) that the researcher took in analyzing and interpreting the data gathered, understanding concepts and variables according to the given

definitions, and building knowledge by validating or challenging theoretical assumptions.

### Conservative Plan Theory

Conservative plan theory involves analyzing the cost involved financing working capital that must be equal to cost of long-term fund that is on annual average loan by long-term rate of interest. Fixed and partly current assets are financed by some long-term sources of funds that are permanent and expensive with low risk. Good working capital management is an important too given that the current assets directly affect liquidity, firm growth, return on investment and profitability of oil producing companies. This theory is based on philosophy known as play it safe (Waithaka, 2012).

The theory attempts to relay available alternatives of long term financing opportunities that cover all anticipated eventualities in the business. Conservative plan theory implies high investment in current assets to grow on the turnover ratio. This approach does not need short- term borrowing and may be in the long run expensive because available funds may not be fully used in certain time horizon but interest on such funds are not needed may still be accrued and are paid. The theory is very effective to all oil producing companies in utilizing measures of working capital even though when the companies are required to utilize measures on working capital even if their profitability is positive in the comprehensive income statement (Jel, 2014)

### The Hedging Plan Theory

Hedging theory mean no long term funds will be used to finance short-term seasonal need i.e. current assets are equal to current liabilities. The theory presents a moderate policy that links assets and liabilities to maturity. The theory was developed by Finnerty in nineteen ninety three and it states that current acid test and cash ratios are

balance sheet measures that cannot give a detailed and accurate working capital that is effective and efficient. Hedging theory is a risk based theory as its full utilization on the firm's capacity to use short-term funds in an emergency situation not satisfies short-term needs. Most companies use long-term sources in financing fixed assets and permanent current assets plus short-term funds in financing temporary current and utilization of ongoing liquidity management (Waithaka, 2012).

Ongoing liquidity management means that inflows management and outflows of cash arising from the company's as the payment and collection takes place over a period of time. In hedging approach, a firm needs to have additional inventories for about two months and short term funds also for two months in order to match the inventory purchase. However limited access to short term working capital sources which include bank financing and suppliers financing does not augur well with hedging approach. Jel, (2014) gave an opinion that most of them it is reasonable to study the WC management approach in reference to utilization of funds.

**Aggressive Theory**

This theory is applicable where a firm intends to take high risk and where short-term funds are used to a higher degree in financing current and fixed assets. This approach is characterized by low interest level but it is crucial to note that most companies that are operating in a stable economy is more certain about the future cash flows. Companies operating under aggressive working capital policy after short term credit periods to customers, hold minimal inventory and thus a small amount of cash in hand. This policy in general increases risk of default as the firm may be faced with problem of meeting its short-term liabilities

hence giving a high return as per its association with high risk.

**Conceptual Framework**
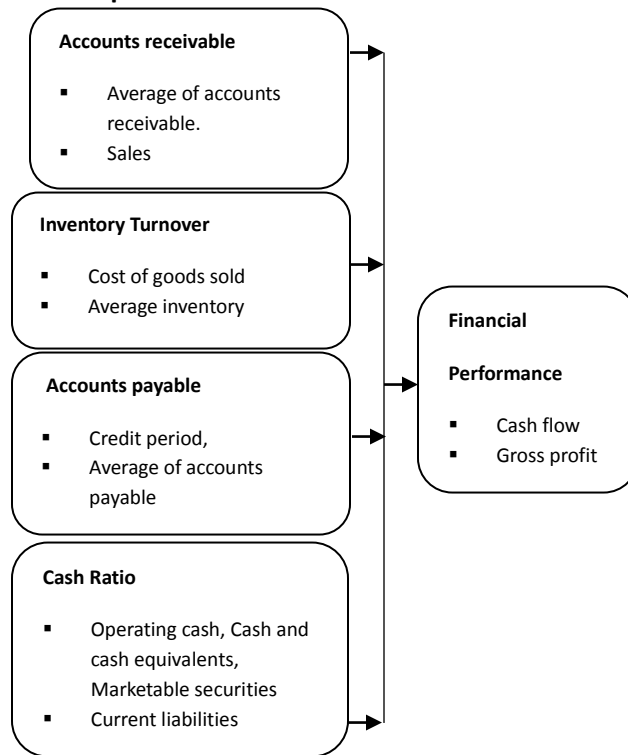


Independent variables        Dependent Variable

**Figure 1: Conceptual framework**

**Review on Variables**

**Accounts Receivable on Financial Performance**

Accounts receivable or generally termed as debtor's collection and policy management involves firstly, firms to decide the sales terms in which firms sell their goods to their customers. Secondly, firms should have decision-making on what evidence firm requires from their customer who owes the payment. Thirdly, firms should analysis the risky customers and non-risky customers are likely to perform their bills, this is called credit analysis. Fourthly, firms should draw up the credit policy structure which means to what extent the firms allow their customers to pay their bills on credit terms. Fifthly, Firms may make sales on credit and

have the problem collecting the payment when the bills become due which is called collection policy from their creditors (Meredith, 2010)

According to Smith (2010), debtors occurs when suppliers (Edible oil companies) make sales on credit to their customers and allow them to postpone their payment that is make payment on a later date when goods have already been delivered. "Trade credit is described to be the suppliers as debt collectors and insurance providers". On the one hand, the suppliers might be in a better position than banks or other financing institutions in terms of financing to their customers because suppliers can stop supplying goods to their customers to alert the borrower on default. On the other hand, suppliers sometimes act as liquidity providers cushioning against liquidity adverse shock which might eventually endanger the survival of their customer relationships. That is the supplier supply goods on credit the buyer sells the goods once s/he has gotten money s/he pays the seller However, "The supplier uses their extra enforceability power to lead on the basis of returns that are non-verifiable and stochastic.

**Inventory Turnover on Financial Performance**

Inventory is one of the real assets. It is the lifeblood of any business by ensuring that organizations keep customer by improving responsiveness to orders made by customers and improved in-house services to other employees. According to Stevenson, (2010) defines inventory management practices as a designed system adopted by a company to manage on their investment made in a stock. This represents current asset in form of value or quantity of raw materials, component, assemblies, consumables, work in progress and finished stock that held for use or sale when need arises. The inventory management is associated with all activities established to guarantee that customers access a

specific product or service in the market produced by a company. Therefore, organizations need to be keen when managing inventories to ensure that its doesn't suffer by tying up working capital or fail to retain customers due to shortage of products or failure to provide a required service. But how many companies balance between the two objectives. The current competition in Business World has led to the organization to be very keen in managing their inventories and the means associated with inventory management practices. The inventories generally comprise of finished goods, semi-finished goods and raw materials that together need effectiveness and efficiency in managing which later will guarantee the profitability in the organization (Brooks,2013).

Company performance depends on many variables; either depends on sales, marketing, good human resource, less production cost, either success inventory. Inventory management is a crucial part of a firm because mismanagement of inventory threatens a firm's viability such as too much inventory consumes physical space, creates financial burden, and increases the possibility of damage and loss. To achieve good company performance, the company must able to create the highest profit at the lowest cost. Inventory is chief component in the current assets that are important for day to day operations of companies to generate revenue. Inventory includes raw materials, work in progress products and finished goods (Brooks, 2013). Managing inventory is a challenge for many companies, finding the appropriate inventory level becomes a tradeoff between the additional cost of carrying too many items in the inventory and sales lost because inventory is running out or stoppage costs associated with raw materials running out. Too much inventory creates additional costs in form of storage costs, potential edible oil and obsolescence (Brooks, 2013).

Furthermore, it is challenging when it comes to inventory management as another trade-off between the cost difference of stocking inventory and the cost of holding inventory. For example if costs of ordering items decreases you can order fewer items per order and hence stock less items and in this way reduce cost but in the case of vice versa and an increase in ordering cost you will order larger quantities as it then might become cheaper to stock items (Mona, 2012). The goal of the financial manager becomes to choose an order quantity that results in the optimal tradeoff between ordering costs and holding cost which will result the cost of managing the inventory being as low as possible ( Smith, 2010). There are several different aspects on how a company can manage the inventory leading to minimizing the costs. The first method is the ABC inventory management method. This method sorts the inventory into three different categories depending on how critical they are for the company. Group A will for example include large-dollar items or items that have high risk loss and will need closer attention and are often checked on a daily basis in order to prevent potential loss. Group B is essential items but not with the same inventory risk as in group A. Moreover group B is checked on periodic basis and the cost of storing these items are not as high as the one in A. The last group C is nonessential items which are monitored infrequently and often only ordered when the inventory level hits zero (Brooks, 2013).

A second aspect is the redundant inventory items which aim to keep items in backup if the current operations fail (Brooks, 2013). For example this works in a similar way to having a backup power generator if there would be a power outage. This is more of a method that can be used additionally with other methods rather than a standalone inventory policy. A third aspect and common method in finding the appropriate level of inventory is the economic order quantity (EOQ). The EOQ is used to minimize the total cost that is associated with the inventory management. It is the balance between the ordering cost and holding costs The EOQ is the quantity of items which should be ordered each time (Omesa, 2013) for optimum stock holding costs. The fourth aspect is the just-in-time (JIT), this is another type of method in handling the inventory. Using a JIT system means that a company is trying to produce only what is needed with only the necessary raw materials at the needed time, hence reducing or eliminating waste and improving the productivity. In other words the company works closely with suppliers and customer to reduce the time they have finished goods in inventory and the overall inventory and through this reduce the holding costs. (Brooks, 2013). Just in time helps to improve efficiency in the operations since any wastage will lead to a bottleneck it the manufacturing process and any delay in any part of the supply chain will be easily identified and rectified.

**Accounts Payable on Financial Performance**

A firm's payables involves those willing to supply materials and services on credit terms to trusted clients, credit policy set by suppliers determines who they will give credit (the ability to pay for goods or services at a later date). Credit management is the method by which one can collect and control the payments from customers.  Pandey (2010), describe credit management as methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. A proper credit management will lower the capital that is locked with the debtors, and also reduces the possibility of getting into bad debts.

According Horngren (2012), unless a seller has built into his selling price additional costs for late payment, or is successful in recovering those costs by way of interest charged, then any overdue account will affect his profit. In some competitive markets, companies can be tempted by the prospects of increased business if additional credit is given, but unless it can be certain that additional profits from increased sales will outweigh the increased costs of credit, or said costs can be recovered through higher prices, then the practice is fraught with danger. Most companies can readily see losses incurred by bad debts, customers going into liquidation, receivership or bankruptcy. The writing-off of bad debt losses visibly reduces the Profit and Loss Account .The interest cost of late payment is less visible and can go unnoticed as a cost effect. It is infrequently measured separately because it is mixed in with the total bank charges for all activities. The total bank interest is also reduced by the borrowing cost saved by paying bills late. Credit managers can measure this interest cost separately for debtors, and the results can be seen by many as startling because the cost of waiting for payment beyond terms is usually ten times the cost of bad debt losses.

Effective management of accounts receivables involves designing and documenting a credit policy. Many entities face liquidity and inadequate working capital problems due to lax credit standards and inappropriate credit policies. According to Padachi, (2011), a sound credit policy is the blueprint for how the company communicates with and treats its most valuable asset, the customers. Gill, (2010), proposes that a credit policy creates a common set of goals for the organization and recognizes the credit and collection department as an important contributor to the organization's strategies. If the credit policy is correctly formulated, carried out and well understood at all levels of the financial institution, it allows management to maintain proper standards

of the bank loans to avoid unnecessary risks and correctly assess the opportunities for business development.

Accounts receivables are the amounts the customers owe where the company has delivered a good or service and given the customer an extending credit (Horngren, 2012). In the world today most firms and Edible oil companies are sourcing their materials through credit. It is important for businesses to manage accounts receivables well so that they receive payments in time. The main benefit for companies to offer trade credit is that it can boost the sales of the company (Horngren, 2012). It is common that today's companies have large investments in receivables yet there is evidence that a lot of companies lack formal policies for how to manage their receivables and credit extension policy (Senthilmani, 2013). For the financial managers to be able to add value for the company's shareholders they can properly influence three areas: the company's aggregate investment in payables, the credit terms and the credit standards.

**Cash ratio on Financial Performance**

Cash flow management plays an important role in the flow of goods in and out of the company. This being part of operations management ensures there is need to facilitate the smooth flow of incoming raw materials (inbound) to the company with the aim to facilitate the operations. The proper inbound management impact several aspects in the company, such as, on production schedules, distribution effectiveness, customer satisfaction and firm financial performance (Huynh, 2011). Bolek and Wiliński (2012) suggest that liquidity can be defined in three contexts; where they distinguish the asset, asset-equity, and cash aspects of financial liquidity. The financial liquidity of company's assets – is the ability to convert assets into cash in the shortest possible time, at the

lowest possible costs and without losing their value

Appropriate resources of cash ratio elements of the assets, including cash, are the enterprise's protection against the loss of financial liquidity. According to Bolek and Wiliński (2012) asset-equity aspect of financial liquidity or cash of an enterprise as the ability to settle its liabilities (short-term ones, payable within one year) on time through liquidizing possessed high-liquidity assets (current assets). Cash of an enterprise is better when larger part of its assets is high-liquidity elements, and worse when the opposite is true. Therefore, if an enterprise wants to maintain high level of financial cash, it must possess a large share of cash and high liquidity assets and a small share of short-term liabilities. According to Bhunia, (2011), cash is the most important current asset for the operation of the business firm and it is therefore seen as the basic input needed to keep a business running on a day-to-day basis. These commitments are generally met through cash inflows, supplemented by assets readily convertible to cash or through the institution's capacity to borrow. Sound and prudent cash policies set out the source and amount of liquidity required to ensure it adequate for the continuation of operations. The policies must be supported by effective procedures to measure, achieve and maintain good cash level in the business. Operating cash is the level of cash required to meet an institution's daily cash outflow commitments. Operating requirements are met through asset/liability management techniques for controlling cash flows, supplemented by assets readily convertible to cash or by an institution's ability to borrow (Egbide, 2013).

**Financial Performance**

Company's financial performance can be defined as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Padachi, 2011). According to (Huynh, 2011), defines performance measurement as a way of ensuring that resources available are used in the most efficient and effective way. The essence is to provide for the organization the maximum return on the capital employed in the business. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Key useful measures of financial performance are wound into what is referred to as CAMEL. The acronym "CAMEL" refers to the five components that are accessed: Capital adequacy, Asset quality, Management, Earning and Liquidity.

Capital adequacy is the determination of the minimum capital amount required to satisfy a specified economic capital constraint (Chien, 2014). Ultimately it determines how well edible oil producing companies can cope with the shocks to their balance sheet. Thus it's useful to track capital adequacy ratios that take financial risks, foreign exchange credit and interest rate risks, by assigning risks ratios established by the Bank of International Settlement (BIS). Capital adequacy is measured in firms in relation to the relative risk weight assigned to the different category of assets held both on and off to control the incentive to take on excessive risk and to absorb a reasonable amount of losses.

The solvency of edible oil producing companies is typically at risk when their assets become impaired, so it is important to monitor indicators of the quality of their assets in terms of over exposure to specific risks trends in receivables and the health

and profitability of merchandisers. Debtors risk is inherent in most edible oil companies in their supply chain management. It arises when a receivables default on the payment of goods as agreed. Edible oil producing companies whose debtors' defaults on their payment may face cash flow problems, which eventually affects its liquidity position. Ultimately, this negatively impacts on the profitability and capital through extra specific provisions for bad debts (Senthilmani, 2013). Management quality (approximated by cost efficiency scores) has been associated with edible oil producing companies' failures in a number of recent studies. Cost efficiency is approximated by a simple ratio of Operating Expenses to Total Revenues, denoted as Efficiency Ratio, which measures management flexibility to adjust costs to changes in the business development signaled by revenues. The higher is the Efficiency Ratio, the higher is the default risk.

This is the continued viability of edible oil producing companies on ability to earn an adequate return on its assets and capital. The evaluation of earnings performance relies heavily upon comparison on the key profitability measures (such as return on assets and return on equity) to industry bench mark and peer group norms (Almazari, 2013). Most edible oil company's studies emphasis is placed on profitability in terms of ROE and ROA. Profitability as a measure of performance is widely accepted by edible oil producing companies, financial institutions, management, company owners and other creditors as they are interested in knowing whether or not the firm earns substantially more than it pays by way of interest (Bagchi, 2012). The return on investment ratio is used to determine profitability of such a company. Initially solvent edible oil producing companies may be driven towards closure by management of short term liquidity. Indicators should cover funding sources and capture large maturity mismatches. Liquidity is

the degree to which debts obligations coming due in the next 12 months can be paid in cash or assets that will be turned into cash .The mismatching and controlled mismatching of the maturities and interest rate of assets and liabilities is fundamental to the management of companies. It is unusual for edible oil producing companies to be completely matched since business transacted is often of uncertain term and of different types. An unmatched position potential enhance profitability but also increase the risk of losses (Nobanee, 2011)

**METHODOLOGY**

The research adopted a descriptive survey by exploring on edible oil producing companies in Kenya. The approach allowed for an in-depth investigation of the problem under study. The researcher used random sampling when selecting Edible oil companies so as to be in a position to generalize on a larger sample size of percentage of the total population. This is because of the different locations in terms of branches but concentrating on those that are easily accessible. Therefore from the target population a sample size was obtained by applying the formula by Glenn, D. (2012):

$n = N/[1+N(e)^2]$
Where: n is the sample size;
     N is the target population
     E is the precision level (5%)
$N = 62/[1+62 (0.05)^2] = 54$
The study also employed a multiple regression model for analysis.
The model regression is given as:
$Y = \beta0 + \beta1 X_1 + \beta2 X_2 + \beta3 X_3 + \beta4 X_4 + \varepsilon$,
Where;
Where Y= Financial Performance,
$\beta0$ = constant term,
$\beta$ = Beta coefficients
$X_1$ = Accounts Receivable
$X_2$ **=** Inventory Turnover
$X_3$ = Accounts payable

$X_4$ = Cash Ratio

$\varepsilon$ = Error Term

The regression equation; **$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$**:

Whereby:

Y = Financial Performance; ROA = Net Income/ Average Total Assets. $\beta 0$ **=** Constant term

X1 = Accounts receivable X2 = inventory turnover X 3= Accounts Payable X4 = Cash ratio **$\varepsilon$**: = Error term

Accounts receivable does not significantly impact on the financial performance. The relationship between cash conversion cycle and financial performance in edible oil producing companies is determined by use of regression equation $Y = \beta 0 + \beta 1X1 + \varepsilon$: where y is financial performance; X1 is accounts receivable and $\beta$ is coefficient of correlation

Inventory turnover does not significantly impact on the financial performance. The relationship between accounts receivable and financial performance in edible oil producing companies is determined by use of regression equation $Y = \beta 0 + \beta 2X2 + \varepsilon$: where y is financial performance; X2 is inventory turnover and $\beta$ is coefficient of correlation.

Accounts payable does not significantly impact on the financial performance. The relationship between accounts payable and financial performance in edible oil producing companies is determined by use of regression equation $Y = \beta 0 + \beta 3X3 + \varepsilon$: where y is financial performance; X3 is accounts payable and $\beta$ is coefficient of correlation.

Cash ratio does not significantly impact on the financial performance. The relationship between cash ratio and financial performance in edible oil producing companies is determined by use of regression equation $Y = \beta 0 + \beta 4X4 + \varepsilon$: where y is financial performance; X4 is cash ratio and $\beta$ is coefficient of correlation

**RESEARCH FINDINGS**

**Accounts Receivable and financial performance**

The first objective of the study sought to find out the effect of accounts receivable as an aspect of working capital management practices and how it impacts on the financial performance of Edible Oil Producing Companies

Table 1 the data showed that company conducts credit analysis before releasing goods to receivable had a highest mean of 3.26 and a standard deviation of 1.454. It is true that most companies have their term and conditions for the goods and services that they are selling to the clients. Secondly, trade discount is given to encourage immediate payment of goods received had a mean of 3.20 and a standard deviation of 1.212. Companies determining the sales terms of goods to customers was third with a mean of 2.96 and standard deviation of 1.538. Evidently, companies with the distributors who often settle on their consignments after sale or after specified credit period are established at the company level. Company having outstanding receivables holding their goods on credit had a mean of 2.70 and a standard deviation of 1.389. Mostly, companies evaluate on the credit worthiness of different suppliers before entrusting them with their inventories.

**Table 1: Statement relating to Accounts Receivable and financial performance**

|  | N | Mean | Std. Deviation |
|---|---|---|---|
| My company has outstanding receivables holdings our goods on credit | 50 | 2.70 | 1.389 |
| My company determines the sales terms of goods to customers | 50 | 2.96 | 1.538 |

| | N | Mean | Std. Deviation |
|---|---|---|---|
| Trade discount is given to encourage immediate payment of goods received | 50 | 3.20 | 1.212 |
| My company conducts credit analysis before releasing goods to receivables | 50 | 3.26 | 1.454 |

**Inventory Turnover and financial performance**

The second objective of the study sought to find out the impact of inventory turnover as an aspect of working capital management practices and how it effects on the financial performance of Edible Oil Producing Companies. From the analysis, systematizing inventory reduces costs incurred. This has a highest mean of 3.68 and a standard deviation of 1.133. The inventory management in first in first out FIFO or last in first out LIFO was common concepts applicable. Secondly, companies categorizing the nature and type of inventory had a mean of 3.22 and standard deviation of 1.282. Inventory represents liquid tradable assets in Oil companies had a mean of 2.98 and standard deviation of 1.407. This was followed by the aspect relating to companies having just in time approach to inventory management which had a slightly above average with a mean of 2.74 and standard deviation of 1.411.

**Table 2: Inventory Turnover and financial performance**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| My company has just in time approach to inventory management | 50 | 2.74 | 1.411 |
| Inventory represents liquid tradable assets in Oil companies | 50 | 2.98 | 1.407 |
| My company categorizes the nature and type of inventory | 50 | 3.22 | 1.282 |
| Systematizing inventory reduces costs incurred | 50 | 3.68 | 1.133 |

**Accounts Payable and Financial Performance**

Results in Table 3 showed that most of the respondents were in support that their companies applies a pro rata model to payables. This had a mean of 4.06 and a standard deviation of 0.867. The model is common to many businesses with the intention to maintain a balanced tradeoff between the receivables and the payables in their accounting and finance systems. Secondly, credit analysis is healthier to financial management had a mean of 3.38 and a standard deviation of 1.338. This is in line to the fact that it is not important to do business with clients or distributors who are bankrupted as this curtails on the growth and may lead to doubtful debts. Statement relating to companies having active account payables had a mean of 3.18 and standard deviation of 1.561. Lastly, majority of the respondents were in agreement that improper credit management causes liquidity challenges. This had a slightly below average with a mean of 2.22 and a standard deviation of 1.447.

**Table 3: Accounts payable and financial performance**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| Improper credit management causes liquidity challenges | 50 | 2.22 | 1.447 |
| My company has active account payables | 50 | 3.18 | 1.561 |
| Credit analysis is healthier to financial management | 50 | 3.38 | 1.338 |
| My company applies a pro rata model to payables | 50 | 4.06 | .867 |

**Cash ratio and financial performance**

The fourth objective of the study sought to the effect of cash ratio on financial performance. To achieve this, the study sought the level of agreement on a five point likert on several statements describing cash ratios. From the analysis company having a good cash flow management policy had a highest mean of 3.94 and standard deviation of 1.038. For every company to survive, it must adhere to basic financial management practices that involve safeguarding and developing policies to their cash flow. Secondly, operating activities in cash flow directly impacts the financial performance of edible oil companies had a mean of 3.88 and standard deviation of 1.118. Statement relating to cash in comes from the sale of inventories had a mean of 3.86 and standard deviation of 0.969. Finally, most of the respondents agreed that cash flow management directly impacts on financial performance with a mean of 3.74 and a standard deviation of 1.121.

**Table 4: Cash ratio and financial performance**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| Cash flow management directly impacts on financial performance | 50 | 3.74 | 1.121 |
| Cash in comes from the sale of inventories | 50 | 3.86 | .969 |
| Operating activities in cash flow directly impacts the financial performance of Oil companies | 50 | 3.88 | 1.118 |
| My company has good cash flow management policy | 50 | 3.94 | 1.038 |

**Financial Performance of Edible Oil**

**Table 5: Financial Performance of Edible Oil**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| There is increase in gross profit in current financial income statement | 50 | 1 | 5 | 2.48 | 1.266 |
| There is an increase in return on investment over last five years | 50 | 1 | 5 | 2.78 | 1.329 |
| There is a growing market share of our edible oil in the Kenyan market | 50 | 1 | 5 | 2.62 | 1.244 |
| Net firm income has increased over last five years | 50 | 1 | 5 | 3.44 | 1.146 |
| Valid N (list wise) | 50 | | | | |

Table 5 sought to establish different aspects of financial performance and the respondent's level of support. From the analysis it was evidenced that the net firm income has increased over last five years had a highest mean of 3.44 and a standard deviation of 1.146. Statement relating to an increase in return on investment over last five years had a mean of 2.78 and standard deviation of 1.329 coming in second.

This was followed by the growing market share of edible oil in the Kenyan market with a mean of 2.62 and standard deviation of 1.244. Increase in gross profit in current financial income statement was ranked last with a mean of 2.48 and a standard deviation of 1.266

## Regression Analysis

To compute on the strength between the dependent variable and the independent variables, the researcher conducted several forms of inferential analysis. This involves use of coefficient of determination, analysis of variance ANOVA and multi linear regression analysis.

## Coefficient of Determination

The model summary below shows the model explanatory; the percentage of variation in financial performance which can be explained jointly by accounts receivable, inventory turnover, accounts payable and cash ratio. An R square of 0.251 shows that 25.1% of the changes in Edible Oil Producing Companies in financial performance can be explained by accounts receivable, inventory turnover, accounts payable and cash ratio while the remaining 74.9% can be explained by other factors which are excluded in the model.

### Table 6: Model summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .501[a] | 0.251 | 0.234 | 0.19538 |

a. Predictors: (Constant),  Accounts Receivable, Inventory Turnover, Accounts payable and Cash Ratio

b. Dependent Variable: Financial performance

## Analysis of Variance

The analysis of variance shows that Accounts Receivable ,Inventory Turnover, Accounts payable and Cash Ratio has joint significant contribution on Edible Oil Companies financial performance since F = 3.767 and p value .010[b]

### Table 7: Analysis of Variance

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 11.898 | 4 | 2.974 | 3.767 | . 010[b] |
|   | Residual | 35.532 | 45 | 0.790 | | |
|   | Total | 47.430 | 49 | | | |

a. Predictors: (Constant),  Accounts Receivable ,Inventory Turnover, Accounts payable and Cash Ratio

b. Dependent Variable: Financial performance

## Multiple Regression analysis

Results in Table 8 shows that there was a positive and significant relationship between accounts receivable and financial performance (β = 0.211, p value >0.05). Secondly, there was a positive and significant relationship between inventory turnover and financial performance (β = 0.284, p value >0.05). This implies that a unit change in inventory turnover while holding accounts receivable accounts payable and cash ratio constant increases financial performance by 0.284 units. Thirdly, there is a positive and significant relationship between accounts payable and financial performance (β= 0.231, p value > 0.05). This implies that a unit change in accounts payable while holding accounts receivable, inventory turnover and cash ratio constant increases financial performance by 0.231 units. Fourthly, there is a positive and significant relationship between cash ratio and financial performance (β= 0.130, p value > 0.05). This implies that a unit change in cash ratio while holding accounts receivable, inventory turnover and

accounts payable constant decreases financial performance by 0.130.

**Table 8: Multiple Regression Analysis**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 0.052 | 0.952 | | 0.055 | 0. 956 |
| | Accounts Receivable | 0.211 | 0.125 | 0. 230 | 1.694 | 0. 097 |
| | Inventory Turnover | 0.284 | 0. 136 | 0. 300 | 2.084 | 0. 043 |
| | Accounts Payable | 0.231 | 0. 137 | 0.244 | 1.689 | 0.098 |
| | Cash Ratio | 0.130 | 0. 167 | 0.102 | 0.777 | 0.441 |

a. Dependent Variable: Financial performance

b. Accounts Receivable ,Inventory Turnover, Accounts payable and Cash Ratio

$Y= \beta_0 + \beta1 X_1 + \beta2 X_2 + \beta3 X_3 + \beta4X_4 + \varepsilon,$

$Y = 0.052 + 0.211X_1 + 0.284X_2 + 0.231 X_4 + 0.130X_{4} + \varepsilon,$

From table 8 above, the following regression equation was established:

Financial performance = 0.052 + 0.211ACR + 0.284IT + 0.231ACP + 0.130CR

From the model, when other factors (accounts receivable, inventory turnover, accounts payable and cash ratio) are at zero, the financial performance was 0.052.

Holding other factors constant (inventory turnover, accounts payable and cash ratio) accounts receivable lead to a 0.211 increase in financial performance of edible oil producing companies in Kenya.

Holding other factors constant (accounts receivable, accounts payable and cash ratio), inventory turnover lead to a 0.284 increase in financial performance of edible oil producing companies in Kenya.

Holding other factors constant (accounts receivable, inventory turnover and cash ratio) accounts payable would lead to a 0.231 increases in financial performance of edible oil producing companies in Kenya.

Holding other factors constant (accounts receivable, inventory turnover and accounts payable) cash ratio would lead to a 0.130 increases in financial performance of edible oil producing companies in Kenya.

**Correlation Analysis**

Inferential statistics was used to answer the research questions of the study. Product moment correlation analysis was used to examine the strength of the relationship between financial performance and the four independent variables while multi linear regression analysis showed the nature of the relationship between variables of interest

Results in Table 8 shows that there was a positive and significant relationship between financial performance and Accounts Receivable (r=0.230, p value <0.05). Secondly, there was a positive and significant relationship between financial performance and Inventory Turnover (r= 0.410, p value < 0.05). Thirdly, there was a positive and significant relationship between financial performance and Accounts payable (r= 0.297, p value < 0.05). Lastly there was a positive and significant relationship between financial

performance and Cash Ratio (r= 0.027, p value < 0.05). The study concludes that inventory turnover and accounts payable should be given a higher priority in the organizations.

**Table 9: Correlation Analysis Matrix**

|  | Financial Performance | Accounts Receivable | Inventory Turnover | Accounts payable | Cash Ratio |
|---|---|---|---|---|---|
| Financial performance | 1 |  |  |  |  |
| Accounts Receivable | 0.230 | 1 |  |  |  |
| Inventory Turnover | 0. 410 | 0.155 | 1 |  |  |
| Accounts payable | 0.297 | -0.191 | 0.366 | 1 |  |
| Cash Ratio | 0.027 | 0.005 | -0.149 | -0.127 | 1 |

**Hypothesis Testing**

**Table 9: Hypothesis testing**

| Hypothesis statement | Test mode | Results |
|---|---|---|
| Accounts Receivable | $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ | p> 0.05 Fail to reject |
| Inventory Turnover | $Y = \beta_0 + \beta_2 X_2 + \varepsilon$ | P<0.5 Rejected |
| Accounts Payable | $Y = \beta_0 + \beta_3 X_3 + \varepsilon$ | p> 0.05 Fail to reject |
| Cash Ratio | $Y = \beta_0 + \beta_4 X_4 + \varepsilon$ | P<0.5 Fail to reject |

Going by the value and level of significant of the regression coefficients, we fail to reject the three null hypotheses and reject one null hypothesis. The three null hypothesis failed to reject are Accounts receivable, accounts payable management and cash ratio. Inventory turnover is rejected and an alternative hypothesis adopted.

**CONCLUSSION**

From the findings shown in the study analysis, it was evident that working capital management practices and financial performance of edible oil producing companies in Kenya depends on the appropriate and effective accounts receivable collection, inventory turnover, accounts payable management and cash ratio that is in place in the organizations. The study involved an in-depth analysis and outlined correlation between the independent and dependent variables of the study. The stated specific objectives had a significance contribution to the financial performance of the indicated companies. The management of edible oil producing companies should continuously monitor the operation of working capital to promote healthy financial performance.

**RECOMMENDATIONS**

Referring to the analysis from the study based on accounts receivable collection, inventory turnover, accounts payable management and cash ratio as key element of working capital management practices and how they impact on the financial performance of edible oil producing companies in Kenya. It is evident that the management of edible oil producing companies in Kenya should set credit policy, inventory management practices to run their business smoothly. This help to run the

companies without financial or operational constraints. Similarly there is need to have qualified financial managers to manage such institutions in day to day. This gives strong emphasis on working capital management that directly impacts on the financial performance of edible oil producing companies in Kenya

## Research Limitations

The research was successful, though there were some challenges along the way during the research period. During data collection, there were some reluctance among respondents due to confidentiality issues when giving personal information about the financial performance of edible oil producing companies and working capital management elements. The respondents were assured of confidentiality to the information that was given.

## Suggestions for Further Studies

Based on the limited time the researcher had and financial constraints. The author did not fully exhaust all the working capital management practices and financial performance of edible oil producing companies in Kenya.

The following are some of the areas that further research may be focused:

- There is need to conduct another study in other line of manufacturing companies.
- Similar study be done on the same topic with different companies over an extended sample period of financial years.
- A study undertaken on the impact of external factors on working capital management in vegetable oil manufacturing companies.
- Similar study with an extended scope to cover other components of working capital management including cash and marketable securities.

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