

**ASSESSING WORKING CAPITAL MANAGEMENT AS A DETERMINANT OF
PROFITABILITY OF AGRO- FIRMS IN ELDORET BUSINESS CENTRE,
KENYA**

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Fulfilment of the Requirements for the Conferment of Degree of Masters in Business
Administration (Finance) of the School of Business and Economics, Department of
Business Administration, Kisii University**

October, 2016

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DEDICATION

This thesis is dedicated to my parents the late Mr. Likalama, and Sabina who have always encouraged me to develop the spirit of hard work and determination which has brought this work to where it is now. Thanks to Mama and late Papa. I also want to extend my heartfelt gratitude to my children, Alyssa, Amarah and Aviel without whose consistent support, the work would not be where it is at the moment. Without forgetting my dear husband Amon for his consistent prayers, patience, understanding and encouragement, this work would not be completed.

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ABSTRACT

Most agro-firms in Eldoret business Centre have been operating with excess working capital and yet others operate with inadequate working capital meaning it has been difficult to manage their working capital. Businesses are expected to manage their working capital, and its components to enable them generate profitability in their businesses. The purpose of the study was to assess working capital management as a determinant of profitability on agro-firms. The objectives of the study were to assess management of accounts receivables, accounts payable, inventory and cash on firm's profitability of agro-firms in Eldoret Business Centre. The study was guided by Baumol model, Miller-Orr model, conservative policy and inventory theory. This study adopted a descriptive survey design. The study had targeted a population of 510 respondents. Purposive sampling technique was used to sample 51 managers, while simple random sampling was used to sample 214 other employees. Data was collected using a 5 point Likert scale structural questionnaire. To determine the validity of research instrument, the items in the questionnaires' content, structure and sequence were appropriately amended to remove any ambiguities and pilot study was carried out and experts' opinion was sought. Reliability of proposed constructs was tested using Cronbach Alpha. The findings indicated that Working capital management had a cronbach's alpha coefficient of 0.725, Management of accounts receivables had a coefficient of 0.716, management of accounts payable 0.797, management of inventory had a coefficient of 0.781, management of cash had a coefficient of 0.736 and profitability had a cronbach's alpha coefficient of 0.781. The data was analysed using descriptive statistics that include frequency distribution tables, percentages and other measures of central tendency. From the study it was concluded that all of the postulated hypotheses were not supported. Indicating that management of accounts receivables $p=0.001$, management of accounts payables $p=0.000$, management of Inventory $p=0.026$ and management of Cash $p=0.000$ are predictor variables for profitability of agro firms. This study recommends that there is need for managers to create value for their shareholders by ensuring effective and efficient management of debtors, they should negotiate for better terms of credit with their supplies, managers should put in place effective inventory control systems to their supply chain department and lastly agro firms should ensure effective cash management and working capital practices. Owing to the limitations of the study it is suggested that same study be done but in other sectors to allow generalizations of the study findings. Working capital is not only a factor that ensures profitability of agro-firms; hence there is need for a study on the determinants of profitability in agro firms.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Working Capital is referred as the spark of life and nerve centre of any business Deloof, (2003). Within the existing industrial world, Working Capital refers to the short term funds essential for supporting the entire duration of the operating cycle of a business known as Accounting period. Therefore, it's a transaction capital that is not maintained in the business in an exceedingly explicit type for over a year (Gill *et al.*, 2010).

The maintenance of working Capital is said to be adequate, once the working Capital is adequate it will result in business protection from adverse effects of shrinkage in the value of current assets (Kaur 2010). Adequate capital permits carrying of inventories at a level that will allow a business to serve reasonably to customer requirement, enables a company to offer favourable credit terms, to operate its business more efficiently (Pandey, 2006).

Profitability of the firm is additionally affected by excessive capital referred to as a scenario of idle funds that earn no profits for the firm. The evils of excessive capital are among others; to over trade and loose heavily, needless accumulation of materials, imbalance between liquidity and profit, high liquidity can involve a corporation to undertake larger production that will have an identical demand. It will realize itself in an exceedingly embarrassing position; its marketing policies aren't properly adjusted to enhance the marketplace for its product (Bhattacharya 2009). Most studies with reference to asset management support the actual fact that aggressive working

capital policies enhance a firm's profitability. Previous studies worldwide like Jose *et al.* (1996), Shin and Soenen (1998), Wang (2002) and Deloof (2003) supported the fact that reducing the net credit amount might enhance a firm's profitability, permitting managers to make value for the shareholders by reducing the investment in current assets.

In Kenya, studies done on working capital management and firm profitability are; Mathuva (2010) concentrated on the influence of working capital management on company profit. The study found out that the longer it takes to pay creditors, the more profitable the organization becomes. Gakure *et al.* (2012) investigated the correlation between working capital management and performance of manufacturing companies and the study found out that cash model cycle was found to be absolutely connected with firm's profitability. According to Padachi (2006), management of working capital is vital for the monetary health of all businesses, no matter kind and size. It's necessary that inefficient working capital Management might not solely scale up profit.

Omesa *et al.* (2013) did a study on working capital management and company performance of twenty producing companies, thus the study can use return on capital employed. Finally, Makori and Jagongo, (2013) did a study on working capital management and a firm performance; an empirical proof from manufacturing and construction companies listed on the Nairobi stock exchange, where the study findings indicated that there is a relationship between inventory and, accounts liabilities amount and profit.

Specifically, in agro-firms in Eldoret Business Centre, great amount of cash is commonly invested in inventory and work-in-progress, and these are the key parts of working capital and therefore adequate management of these resources become significant if the firm should succeed financially. Sound working capital management ensures that organizations have the power to fulfil their short-run liabilities adequately and on time. Where-ever companies have accumulated idle resources which cannot generate any financial gain or as indicated forestall inaccessibility of enough monetary resources required for meeting short-run monetary obligations. Thus, this explains why it is usually argued that efficient working capital management is incredibly vital in achieving the main objective of the organization, which may be the profitability of a firm.

1.2 Statement of the problem

The most significant issue in working capital management is maintaining of liquidity within the daily operations of a firm, since it helps in preventing creditors and suppliers whose claims are due within the short term from exerting unwarranted pressure on management and thus ensure smooth running of the firm. This means that, the objective of working capital management is to ensure maintenance of satisfactory level of working capital to prevent excessive or inadequate availability of assets (Filbeck and Krueger, 2005).

Working capital management efficiency is essential particularly for agro firms; wherein the main part of assets is composed of current asset (Horne & Wachowitz, 2000). It directly impacts the profitability and liquidity of organizations (Raheman & Nasr, 2007). The profitability liquidity exchange off is essential due to the fact that if operating capital management isn't given attention then the corporations are in likelihood to fail and face financial crisis. Working capital is the

most important factor for keeping liquidity and profitability of commercial firms (Mukhopadhyay, 2004).

The findings of Filbeck and Krueger in their 2005 work, is supported by Bhattacharya (2009) who stated that inadequate working capital ends up in the subsequent dangers; the firm might not be able to profit from discount facilities, credit worthiness of the company will be jeopardized due to lack of liquidity, may not take advantage of business opportunities that are profitable, they won't be able to pay dividends because of non-availability of funds, they might borrow funds at unconscionable low liquidity and interest rates can result in low gain, loses its reputation on account of not conformity to its short term obligations.'

In Eldoret Business Centre, businesses register for operation, majority of the businesses operate for a year or two then closes, several scholars would really like to understand the explanations behind the unexpected closures. From numerous feedbacks, it's noted that stock wasn't properly managed; debtors weren't paying their debts, and this suggests that firms aren't generating profits. However, the question that is still unanswered, based on Bhattacharya's (2005) findings is how effective is the management of working capital on profitability, hence the study on assessing working capital management as a determinant of profitability of agro-firms in Eldoret Business Centre, Kenya.

1.3 Objectives of the study

1.3.1 General Objective

The general objective of the study was to assess working capital management as a determinant of Profitability of agro-firms in Eldoret Business Centre, in Kenya

1.3.2 Specific Objective

The specific objectives of the study were:

- i. To determine the assessment of management of accounts receivables as a determinant of profitability on agro- firms in Eldoret Business Centre
- ii. To determine the assessment of management of accounts payable as a determinant of profitability on agro-firms in Eldoret Business Centre.
- iii. To determine the assessment of management of inventory as a determinant of profitability on agro-firms in Eldoret Business Centre
- iv. To examine the assessment of management of cash as a determinant of profitability on agro-firms in Eldoret Business Centre

1.4 Research hypotheses

The study was guided by the following research hypotheses:

H₀₁: There is no significant correlation analysis between management of accounts receivables and agro-firm's profitability in Eldoret Business Centre.

H₀₂: There is no significant correlation analysis between management of accounts payables and agro-firm's profitability in Eldoret Business Centre.

H₀₃: There is no significant correlation analysis between management of Inventory and agro-firm's profitability in Eldoret Business Centre.

H₀₄: There is no significant correlation analysis between management of Cash and agro-firm's profitability in Eldoret Business Centre.

1.5 Significance of the study

The study will be significant to the following:

1.5.1 The Government

The study will be an input to both national government and county governments on policy formulation. The study will help the government to set policies accordingly regarding their management of working capital, payments of both debtors and creditors

1.5.2 Scholars and academicians

The study will be of help to scholars and academicians who may wish to use its findings as a basis for further research on working capital management on profitability. The researcher of the study will also be another beneficiary because she will have added knowledge to the existing literature successfully.

1.5.3 Agro-firms

The study is able to show what areas of support should be instituted in the Agro-firms and that the beneficiaries have to work together. The study is also going to benefit the management because they will be able to realize the areas that they need to improve on.

Most studies in this area have been done but not in this region and therefore it will be an added advantage for the region and the Agro-firms to be specific and it is going to be an addition to the existing literature.

1.6 Assumptions of the study

This study was carried out based on a number of assumptions. Firstly, it is assumed that all individual respondents were able to draw correct and relevant meanings based on their experiences and those of the local population with honest responses. Secondly it is assumed that the respondents would possess adequate competences and emphatic understanding in the policy implications and experiences influencing determinant of Profitability of agro-firms. Thirdly, the study assumes that the samples which were selected for the study were people operating from the same environmental conditions, hence giving related responses that are true and reliable.

1.7 Scope of the study

The study was conducted on Agro-firms in UasinGishu County Eldoret Business Centre. The study covered small scale Agro-firms that are located in Eldoret Business Centre. The study took place between June 2016 and September 2016. The study focused on management of accounts receivables, management of accounts payables, management of inventory and the management of cash.

1.8 Limitations of the study

Even though different efforts were made, the researcher faced some challenges while undertaking this study. To begin with, the fact that the majority of the respondents' educational background was not known, this created some negligence in filling the questionnaire. Some respondents did not give values to the questionnaire and some did not return the questionnaires totally. Besides this, some respondents saw the questionnaire as political, however, the

researcher oriented the respondents on the importance of the questionnaire to the study to avoid such challenges.

Furthermore, since the researcher assumed that respondents had a tight schedule at work not all of the respondents were willing to fill the questionnaires. The researcher expected a sampling error and non-sampling error of (0.05 percent) at 95% significant level. The researcher therefore organized for time through the managers such that respondents had enough time to fill the questionnaire to help in minimizing the errors.

Lastly, the researcher was faced with the challenges dealing with the information regarding confidentiality policy of the Agro-firms but whatever the case the researcher was determined to get the information through the questionnaire with the manager for quality of the study.

1.9 Operational definition of key terms

Accounts Payables are the suppliers whose invoices for goods or services have been processed but who have not yet been paid.

Accounts Receivables are customers who have not yet made payment for goods or services, which the firm has provided.

Agro-firms agricultural firms that deal with animal feeds, poultry feeds, farm chemicals/drugs products, veterinary products and farm machinery

Eldoret Business Centre This is a specified area in Eldoret town and its environment which lies within a radius of one kilometre and it's the place where most businesses are conducted on daily.

Inventory Stock available for sale.

Profitability Ability of a business to earn profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue.

Return on Capital Employed profitability ratio measuring efficiency of a firm to generate profits from its capital employed

Small Scale According to World Trade Organization (WTO), in reference to Kenya, this is a small scale business which has employees from 10 to 50.

Working Capital this is current assets minus the current liabilities

Working Capital management -making decisions that affect working capital

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Review

A number of theories, policies and models had been advanced to give an explanation for the working capital control of companies some of which will be discussed in this study includes the Baumol's model, Miller-Orr model, conservative policy, and inventory theory. These are discussed in turn as follows:

2.1.1 Baumol's Model

Baumol (1952) came up with the model. The model helps in determining a firm's optimum cash stability below certainty. It's far significantly used and exceptionally useful for the purpose of cash control. As in line with the model, cash and inventory control issues are one and identical. The model is basically used in inventory control and cash management. This model trades off among possibility fee or sporting cost or keeping price and the transaction price. As such companies try to decrease the sum of conserving cash and the fee of converting marketable securities to cash.

This model allows in determining a company's optimal cash balance beneath actuality. As in step with the model, cash and stock control challenges are one and the same. There are positive assumptions that are made inside the model. The assumptions are that; the firm is capable of forecasting its cash requirements with certainty and get hold of a particular amount at normal periods, the company's cash payments arise uniformly over a time frame i.e. a steady charge of

cash outflows, the opportunity cost of holding cash is known and does no longer alternate over the years, cash holdings incur an opportunity cost inside the form of possibility foregone, the firm will incur the same transaction value on every occasion it converts securities to cash. Every transaction incurs a fixed and variable price.

The model allows agencies to find out their suited degree of cash stability below fact. The cash management principle is predicated on the trade-off among the liquidity furnished by holding money (the capability to perform transactions) and the hobby foregone through keeping one's property in the form of non-interest bearing money. The important element of the demand for money are then the nominal interest fee, the extent of real profits which corresponds to the amount of favoured transactions and to a set cost of moving one's wealth among liquid cash and interest bearing belongings.

The model has been criticized, in that; it does not allow cash flows to range, overdraft is not taken into consideration, and there are uncertainties within the sample of future cash flows. This model is relevant in that many groups make an effort to reduce the expenses incurred by using proudly owning cash, in addition they strive to spend much less money on changing marketable securities to cash.

2.1.2 The Miller-Orr model

Miller & Orr (1966) have been the founders of this model, the company allows the cash balance to differ between the upper manipulate limit and the decrease control limit, creating a purchase and sale of modern-day belongings most effective when any such limits is reached. The assumption made here is that the internet cash flows are generally distributed with a zero fee of

mean and a widespread deviation. This model affords control limits – the higher manipulate restrict and the lower control limit as well as a return point. Whilst the firm's cash restrict fluctuates at random and touches the top restrict, the company buys enough modern assets to return to an everyday level of cash stability and that is called the return factor. In addition, when the firm's cash flows wander and touch the decrease restriction, it sells sufficient modern belongings to bring the cash stability back to the normal degree that is the go back factor.

The lower restriction is set via the company based on its favoured minimum safety inventory of cash in hand. The company has to also decide the subsequent elements; an interest fee for marketable securities, a fixed transaction value for getting and selling marketable securities, the standard deviation of its day by day cash flows. The Miller and Orr model of cash control is one of the numerous cash management models in operation. It is a crucial cash management model as nicely. It enables the modern-day agencies to control their cash even as thinking of the fluctuations in each day cash flow.

Due to its assumptions, the Baumol model seems to be less sensible. Miller and Orr (1966) sought answers to situations with unsure cash inflows and outflows. All they assumed is that the daily net cash drift is a typically dispensed random variable suggesting a well-known deviation. The liquidity hazard may be decreased by using a bigger cash balance, but it cannot be removed completely. The cash balance need to be improved to the goal level with the aid of promoting securities, when the decrease restrict is reached; and the possibility cost of preserving cash must be decreased by returning to the goal cash balance via buying securities, whilst the upper restriction is reached. The transaction price of buying and promoting securities is constant inside the Miller-Orr model.

As consistent with the Miller and Orr model of cash management the businesses let their cash stability pass inside two limits – the top limit and the lower restriction. The businesses purchase or promote the marketable securities handiest if the cash balance is same to anyone of those.

When the cash balances of an agency touches the higher restriction it purchases a sure wide variety of saleable securities that facilitates them to return again to the desired level. If the cash balance of the organization reaches the lower stage then the corporation trades its saleable securities and gathers enough cash to restoration the problem. It's far usually assumed in such instances that the average price of the distribution of net cash flows is zero it's also understood that the distribution of internet cash flows has a well-known deviation. The Miller and Orr model of cash management assumes that distribution of cash flows is every day.

The Miller-Orr model is extra realistic because it allows model in cash stability in the decrease and higher limits. The lower restriction can be set in keeping with the firm's liquidity requirement. To decide the same old deviation of internet cash flows the pasty records of the net cash go with the flow behaviour may be used. Managerial attention is wanted only if the cash balance deviates from the limits.

The model is relevant to the study because whilst the agro-firm's cash restrict fluctuates at random and touches the top restrict, the firms buy will need to buy enough modern stocks to return to an everyday level of cash stability and that is called the return factor. In addition, when the firm's cash flows wander and touch the decrease restriction, it sells sufficient modern belongings to bring the cash stability back to the normal degree that is the go back factor.

2.1.3 The Conservative Policy

The policy of finance in the firm is alleged to be conservative. The conservative approach states that the firm finances its permanent assets and additionally a part of temporary current assets with long-term financing. (Weston and Eugene, 1975) this is an approach of financing the working capital with low risk and low productivity.

“A conservative policy means that lower return and lower risk, whereas an aggressive policy produces higher return and better risk. The two vital aims of the working capital Management are profitability and solvency. Solvency refers to the firm’s continuous ability to fulfil maturity obligations. To confirm this, the firm ought to be very liquid, which suggests larger current assets holdings facultative in meeting its obligations towards creditors therefore on fill all sales orders leading to smooth production operations. even if the chance of insolvency is incredibly less, taking under consideration the value associated in maintaining the liquidity because the firm’s funds gets pledged in current assets changing into idle, it ends up in reduction in profit, to possess higher profitability, the firm might sacrifice financial condition and maintain a comparatively low level of current assets (Pandey, 2006)

The relevance of this policy to the study suggests larger current assets which are stock holdings facultative in meeting its liabilities towards creditors therefore on fill all sales orders leading to smooth production operations, even if the chance of insolvency is incredibly less, taking under consideration that the agro- firms in Eldoret Business Centre’ funds gets pledged in current assets changing into idle, it ends up in reduction in profit, to possess higher profitability, the firm might sacrifice financial condition and maintain a comparatively low level of current assets

2.1.4 Inventory Theory

In inventory theory the study of service level is as old as the theory of inventory itself (Silver 1970). The most popular and frequently used definitions can be found in Nahmias (2007). Maintaining a low inventory cost is as important to a company as it is to achieve high service levels. The investment cost in the safety stock, along with a desire to maintain high level of service level, provides decision makers with a dilemma, which is difficult to deal with. Customer satisfaction or the capacity to successfully respond to customer demand can be gauged with the aid of measuring the organizational customer service level (Nahmias 2007). Customer service level is defined as the most effective definition is the fraction of customer orders which are fulfilled earlier than their expected delivery time (Nahmias 2007). This means that organizations plan themselves by having sufficient safety stock in the inventory in an effort to satisfy their customers.

The level of logistics service greatly influences customer satisfaction which in turn has a major impact on revenues (Ghiana, Laporte and Mussammo, 2004). In today's global market competitive pressures are forcing companies to offer quicker response to customer needs this makes companies to offer quality and efficient customer service to remain competitive and increase their profitability (Larsen and Thornstenson, 2007). For organizations customer service is the most important component which ensures the ability to responsively deliver products to customers (Ghiana, Laporte and Mussamo, 2004). According to Kumar and Sharman's (1992) timely deliveries comes second after the product attributes, in deciding customer satisfaction which not only improves organizations profit margins, but also develops a better public image. hence it becomes important to meet customer demands on time.

There are two types of service levels including type 1 service level which states that organization do not experience stock outs because of timely deliveries (Wallace and Spearman, 2001). Type 1 service level is used in organizations in cases where shortage occurrence has the same consequences independent of the time and the quantity involved , on the other hand type 2 service level measures the proportion of organizations orders that are met from safety stock (Hopp and Spearman, 2001).

2.2 Working Capital Management Concept

Working capital management is the management of the funding in contemporary belongings and the financing of the modern property, and this involves setting operating capital management coverage and sporting out that coverage in a business's day by day operations (Brigham, et al. 1999), it achieves its goals, together with shareholder wealth maximization, aggressive advantage and increase (Cooper, et al. 1998, Chang, et al. 1995, Asch and Kaye, 1989).

Deloof, (2003) says that Working capital management is the management of company's short-term assets and short term liabilities. It intends to guarantee enough ability of the firm to continue with its activity and to incur operational expenses. More clearly, the working capital is investment needed from the time between the time of purchase of raw materials and the sale of finished products. Its management involves accounts receivables, accounts payables, inventories and cash. Therefore, the nature of flows makes management of working capital important in understanding liquidity needs of the company.

Osioma (1997) defines right operating capital management as "the law, adjustment, and control of the balance of cutting-edge assets and modern liabilities of a firm such that maturing obligations are met, and the fixed properties are well serviced. Appuhami (2008), in step with this definition, suitable quantities of every component of operating capital should be maintained for management functions.

The idea of operating capital was initially to make certain that duties might be met in case the firm went into liquidation having sufficient short-time period belongings assured that the firm might be able to fulfil quick-time period lenders inside the event of liquidation. Consequently, the primary goal turned into to manipulate commercial enterprise in a manner that brief-time period belongings matched short-time period liabilities. Fess (1966), in exercise, a one-year length became used to distinguish among the short and lengthy phrases.

A definition of working capital by Guthmann and Dougall (1948) is that of current assets minus current liabilities. The view of this two was later elaborated by (Park and Gladson 1963). This definition is also known as net working capital. The current assets can be divided into four primary components: cash and its equivalents; marketable securities; accounts receivables; and lastly inventory. There are three major items of current liabilities, which are: accounts payable; expenses payable; accrued wages and taxes, lastly notes payable.

The important factor of working capital management concerns the management of stock, and accounts payable and accounts receivable. Ganesan (2007), stresses that working capital management ought to provide an efficient mix between working capital components to ensure

the capital adequacy of the company is sufficient. Bhattacharya (2009) stated that the idea of working capital was first created by Karl Marx, though in a different form, and the term used was variable capital Cheng *et al*, (2009), came up with definition for working capital as inventory and accounts receivable less accounts payable. Documentation with all kinds of definitions of working capital is accepted in this study to the group of articles from which analyses are made. Hence making decisions that has an impact on working capital is referred to as working capital management.

Kaur, (2010) did a study on working capital management and defines it as the management decisions that ordinarily affect the size and effectiveness of the working capital. It is a managerial accounting strategy that makes a speciality of keeping constant levels of organizational current assets and current liabilities to make sure that an organisation has sufficient cash for you to meet its brief-time period obligations. Working Capital management is a crucial a part of management of finance and contributes notably to a company's wealth advent as it without delay affects company's profitability and liquidity (Raheman and Nasr, 2007; Naseret *al*, 2013).

Comparison of Working Capital Management of two groups of listed companies in Tehran Stock Exchange, which comprises of chemical industry, a study done by (Maradi, Salehi and Arianpoor 2012) and the results indicated that, in medicine industry in comparison with chemical industry, debt ratio makes more effect on reduction of liquidity.

In Kenya, a study that assessed the effects of working capital management practices on financial performance of Small Scale Enterprises, took place in Kisii South District. A sample of 113 Small Scale Enterprises comprising 72 trading and 41 manufacturing companies was used. Pearson's correlation coefficients and multiple regression analysis method were used in data analysis. Therefore, the findings of the study were that, working capital management practices were low among Small Scale firms as many had not used formal working capital management routines and their financial performance was on a low average. This study was carried out by (Nyabwanga, Ojera, Lumumba, Odondo and Otieno, 2012)

2.3 The Concept of Profitability

Management considers profitability as a crucial input while making plans the operations of the enterprise, while lenders and shareholders have a look at profitability to decide the returns on their investment within the enterprise and investigate the risks of their investments, which may be laid low with the industry structure and the nature of the competitive environment (Gitman, 1997).

Profitability ratio is used as a benchmark for comparing the overall performance of a business enterprise. Ratios help in summarizing monetary information and in an effort to make qualitative judgment about the company's profitability. Control has a few discretion over the extent of investment in running capital and the financing of this funding, at any particular level of output; but this selection involves a hazard-return trade-off (Madura and Veit, 1988). Normally, the better the hazard the better the return might be demanded via management and shareholders which will finance any investment in operating capital (Cooper, et al. 1998, Gitman, 1997)

As an alternative, a high degree of operating capital decreases dangers and as a consequence returns because better financing costs are associated with preserving excessive degrees of modern-day belongings the usage of outside assets of finances. If the extent of current property decreases then the asset turnover increases, at the price of profitability (Asch and Kaye, 1989). In the quest for profitability managers need to get rid of uneconomic investments (Uyemura and Kantor, 1997) and luxurious financing alternatives to make certain fee is created for the shareholders.

According to Hawawini, (1986) enterprise strategies are resolute via an organization control of running capital. Working capital this is required by using the commercial enterprise is decided by using a variety of factors (Arthur, 1992). Mismanagement and starvation of working capital is seemed because the critical reason developed and underdeveloped Rafuse, (1996) and Deloof, (2003) discussed that the manner the companies manipulate the operating capital has a considerable effect on profitability.

According to Ross, Westerfield, & Jordan, (2001), when a firm is facing financial difficulties we say it is in financial distress. Bankruptcy occurs when in principle the value of the firm's assets equals the value of its debt or equivalently, equity has no value.

Also, when firms are in financial difficulties their value and profitability fall because the fear of bankruptcy and the costs that go with it move the shareholders to dispose of their shares quickly even at the lowest price possible. This results in the reduction of the firm's value and profitability during the period of financial distress. It is also important to realize that during

financial distress, the cost of debt may also increase (contrary to the general view that debt is cheap) which also reduces profits before tax (Ehrhardt & Brigham, 2004).

Working capital management is high as compared to total assets employed and therefore it is vital that the amount is used in effective and efficient way (Butt *et al*, 2010) and (Ibenta, 2005). The return on assets influences the efficiency of management to use assets to generate earnings. The main purpose of any firm is to maximize profit and maintains the liquidity of the firm also is an important objective.

According to Shaun, (2015), return on capital employed is a profitability ratio that considers efficiency a company makes earnings from its capital employed by comparing operating profit and capital employed. It shows investors how much profits have been generated. Return on capital employed. It is based on two computations Operating profit and capital employed. Net operating profit is often referred to as earnings before interest and tax (EBIT) which is reported on the income statements because it shows the company profits received from its operations. It can be calculated by adding interest and taxes to net income. Capital employed is a fairly complex term because it can be used to refer to many different financial ratios. Capital employed is the total assets of the company less the total current liabilities of the company

Capital employed is shown is the sum of stakeholder's equity and debt liabilities. A higher Return on Capital Employed (ROCE) will indicate more efficient use of capital. Return on Capital Employed should be high than the capital cost; or else it will indicate that the organization is not using its capital effectively and is not generating the shareholder value.

The Return on Assets (ROA) is a profitability ratio measuring the income created by total assets at period by making a comparison net income to the average total assets. The firm invests on capital assets and the return is measured in profits. Return on Assets is most useful in comparison of companies in the same sector as various industries use assets differently. (Shaun, 2015)

Working capital management is usually measured by: cash, inventory, current ratio, accounts payables, accounts receivables among others. Profitability as a measure is the ability of a firm to gain profit through goal oriented financial plans and decisions. According to Ahmadinia, Afrasiabishani&Hesami, (2012) the return on asset and return on equity are generally applied to measure profitability.

The principle motive of any firm is to maximise income but, preserving liquidity of the company also is an important goal. The problem is that increasing income at the cost of liquidity can result in extreme troubles to the firm. For that reason, methods of company have to keep stability among those goals of the companies. Predicament in working capital management is to reap favoured trade-off among liquidity and profitability (Smith, 1980; Raheman& Nasr, 2007).

According to Lindgren *et al.*, (1999), Working capital policy is short term assets management and liabilities within one year. Most probably, financial managers spare more time for working capital management unlike any other activity. The working capital policy debate is having different views in a way that financial distress which leads to bankruptcy of an organization is

believed to be the financial performance assessment which is seen as a vital element in evaluating firm performance. This will result in poor short-term asset and liability management.

2.4 Empirical Review

2.4.1 Management of Accounts Receivables and Profitability

Accounts receivables are customers who have not made payment for goods which the company has supplied. The purpose of management of debtor is to reduce the time between sales and receipt of payment. These receivables are a vital factor of current assets. As a result, changes in the extent can determine the capability of finance of the firm. Trade credit decision relies on many elements such as: competition, goods offered or services offered, however, as pointed by Grzegorz, (2008), the decision of giving trade credit is a settlement between limiting the risk resulting from untrustworthy customers and getting new customers. Therefore, it is imperative for the firm to consider the capabilities of customers in decisions regarding credit. Receivables are directly affected by the credit collection policy of the firm and the frequency of changing the receivables into cash in management of working capital. By granting the customers more liberal credit terms, profitability will be high but at the same time liquidity will be sacrificed.

Loans granted to clients by the firms and the assets of the firm are called accounts receivables. When there is a build-up of receivables, resources are scarce that will in other words be put into more efficient use within the company and earn a return. When it comes to the credit time the company has given to their customers' one has to realize that the longer authorized time the more risks firms encounter. To minimize this risk companies should always try to shorten these credit

times and when that is not done adjustments of prices of the goods or services should be made to compensate for the added risk (Karlsson 1996). It is usually common for companies to shorten the credit arrow in order to hasten debt collection due to the creditworthiness of customers is dynamic over time hence evaluation is needed. If companies do not work with reducing the credit arrow it would mean that it would take longer for them to get payment and that will lower flow of cash and might even result in liquidity problems, however, even though this is a good strategy to have in place, the question remains as to how beneficial this practice is for companies and if it might even be profitable

Concealed credit time can be hard to identify and the easiest way to do that is to follow deals from offer to sales and to payment. Usually the concealed credit time can be shortened by achieving better contact between the different departments within the firm and especially between sales and the factoring department and thereby establishing more effective routines. One important factor concerning when credit falls due is the relationship and contact with the client. Many times the problems occurring from when credit falls due can be caused by the company itself by unclear instructions among other reasons. Also the contact with the customers when credit falls due is critical in shortening the collection process. Therefore debt collection procedures become crucial together with the understanding of all involved parties in the collection process and can also help the reputation of the company. (Karlsson 1996)

The ratio of accounts receivables considers the time taken for an organization's customers to pay for goods thus being negative for the company (Maness & Zietlow, 2005). For firms having cash flow problems shortening of the credit arrow will provide profits in this area. This is the type of

actions one might expect a company will target economic conditions that may change. Therefore, a measure to the extent of these actions will be done with research questionnaire. Since a large part of a firm's working capital can be tied up in accounts receivables the strategy of speeding up this process should help the companies' cash flows and increase the efficiency of their assets. This can be particularly beneficial in times of financial turbulence as it ensures at least partial payments.

According to the theory, by being active the collection process of accounts receivables should be among other things that help shorten down cash flow timeline minimizing the risk for liquidity problems. The interest for this study is whether this type of practices is profitable in a time of financial instability.

2.4.2 Management of Accounts Payable and Profitability

Accounts payables, which arise directly from the business's operations, represent a valuable source of internal spontaneous short term financing that is unsecured and flow of cash (Maness, 1994, Scherr, 1989). Accounts payable is the largest for cash outflow in many firms (Gallinger and Healey, 1987). They are also a notable source of interest free financing (Fraser, 1996). Accounts payable comes in due to the unsynchronized timing of allocation of goods and the services, to the extent that payment occurs after receiving goods and services, credit, which is a source of funds, has been created Asch and Kaye, 1989, Van Home, et al. (1985). Accounts payable is likely to fluctuate with changes in operating activities (Hill and Sartoris, 1992, Ross, et al. 1990, Richards and Laughlin, 1980).

Accounts payables are the suppliers whose invoices for services or goods have been processed but not yet settled. Alternatively, trade credit denies the organization discount paid which can be considered as an implied cost. To add on that, trade credit may ruin the reputation of the company if supplier is not paid. Petersen and Rajan, (1997), say that, delaying payments to suppliers makes a company to evaluate the quality of the goods bought and a low-fee and flexible supply of investment for the company then again, credit in change is a herbal supply of investment that lowers the amount needed in financing the sums secured up in the inventory and accounts of clients. (Wilner, 2000)

Dolfe&Koritz (1999) states that a company's short-term debt is very much determined by the money paid and the main part of this cash flow consists of accounts payables. Changing the routines which can give the company great savings, usually in the form of interest and a reduction on penalty interest and step to better the payment process is to retain firm funds in a safe account for long until payment to get interest is possible. The cash flow of accounts receivables gives rise to short-term reserved earnings and at times short-term shortages in companies' liquidity, coming up with a need for short-term financing, and it is hence important to have a well-functioning payment routine. (Larsson &Hammarlund, 2007)

Negotiating better terms of credit will better this area and a good guideline is to try and renegotiate all invoices. When it comes to a thing to keep in mind is to pay keen attention to the deadliness of the invoices and check the delivery dates. When services or goods are delayed the date on the invoice could differ from the real delivery date and the firm ought to immediately call the company to have it corrected. It's far taken into consideration to be suitable phrases to

apply powerful credit that is given to the company. Paying earlier than the due date incurs loss in shape of non-interest for the company and if price is paid now not on time penalties are paid in terms of interests on expense incurred. (Karlsson, 1997) Nevertheless, one should keep in mind that firms with severe liquidity problems can also deliberately delay payments to suppliers while waiting for cash flows from clients. This exact becomes adjustment between the price of short-term financing and the cost of penalty interest. As the financial turbulence and the decrease in economic growth can have a negative impact on firms it is purpose of the study to measure if companies have used this practice and if the cost of it has had a negative effect on their return.

2.4.3 Management of Inventory and Profitability

Maintaining a large stock shows that capital used in financing it and to cover different costs (Long *et al.*, 1993; Deloof and Jegers, 1996). The swiftness with which the manufacturers are able to meet customer demand is measured by the service level. There are two service level measures typically used. The first one is type 1 service level which denotes the probability of not stocking out over a planning period.

The other is fill rate which denotes the proportion of demand satisfied with the existing inventory, however, companies investing in stock and trade credit can suffer reduced profitability. Further, larger stock lowers the risk of stock-out. Trade credit may excite sales because it allows customers to assess quality of product before making payment (Michal *et al.*, 1993; Deloof and Jegers, 1996). Suppliers may have significant cost advantages over financial firms in giving credit to their clients, it can also be a cheap source of credit for clients, and thus, stock flexibility is the crucial dimension in supply chain management (Koste and Malhotra,

1999). It shows the ability of the firm to include customer's demand fluctuation on time and quantity into the planning cycles. Subsequently two optimization models are developed for the two different types of service level measures. The goal is to determine the safety stock values for all products in a multi-product inventory required achieving aggregate service and filling rate levels at the minimum inventory cost, however, keeping low stock level may lead to lost sales and stock-out. (Deloof, 2003)

Management of stock is an important department that improves the flow of cash of a firm as it portrays pools of cash. One easy way of improving management of stock is to focus on sales forecasting and adapting a control system for this area. By accurately forecasting sales, stock levels can be cut down and cash levels can improve. Nelson (1977) identified several steps in improving a firm's management of stock. This included an analysis of the firm's stock levels in order to decrease the size. To accept a higher price for their stock as their orders become smaller furthermore, an item that moves slowly requires identification and selling off to stimulate cash flow. Other procedures such as accepting orders which effectively lowers stock levels leads is done on the expense of customer service and requires to be weighed with the benefit as it might be beneficial to other competitors, however, lowering lead times can also contribute to improved cash flow of the firm, meaning that goods may be shipped in time to clients and invoicing can take place. By improving the management of warehouse and handling of material employee lost stock or stock which has not been accurately recorded can be located and sold.

Lists of stocks such as Raw materials, Works in Progress of Finished goods that are waiting to be consumed in production or to be sold are known as stock. In the range of management of stock,

the firm aims to hold a minimal acceptable level of stock with regard to its costs (Toomey, 2000, Guariglia and Mateut, 2006). For the growth and survival of companies working capital efficiency is a requirement because it shows the level of stock, production and sales (Nwankwo, 2010).

2.4.4 Management of Cash and Profitability

The cause of cash control is to determine and obtain the correct stage and structure of cash, and marketable securities, regular with the character of the enterprise's operations and targets (Brigham, et al. 1999, Gitman, 1997, Schilling, 1996, Scherr, 1989, Cheatham, 1989). Cash and marketable securities have to be managed if you want to achieve stability among the danger of insufficient liquid or near liquid sources, and the value of maintaining excessively excessive stages of those sources, with the intention to achieve and hold this stability, that's situation to persistent dynamic techniques, both the cause and the precise stage of cash desires to be mounted and monitored

Brigham, et al. 1999, Gitman, 1997, Phillips, 1997, Chambers and Lacey, (1994, Brigham and Gapenski, 1994, Moss and Stine, 1993, Miller, 1991, Scherr, 1989, Cheatham, 1989, Richards and Laughlin, 1980). An organization can do this in expansion of sports activities need to be undertaken, because of the integrative nature of cash to the operation of the agency as an instance, considering that all of the commercial enterprise's belongings are paid for with cash and are transformed through time returned into cash sports through improving cash forecasts, synchronizing cash flows, the use of drift, making an investment excess cash, rushing up cash receipts, and delaying cash payments. This can have a significant impact at the minimal degree of cash vital to keep a particular level of liquidity.

If an enterprise improves its forecasts and arranges its affairs so that a corporation's cash inflows are synchronized with its cash outflows, and transaction balances can be reduced, the level of running capital can also be reduced. If operating capital is financed from debt, the reduction within the significance of operating capital will bring about lower hobby payments which in flip will supply upward push to advanced profit, extra performance and productivity, and more suitable return on assets and go back on fairness (Brigham, et al. 1999, Miller, 1991, Cheatham, 1989).

The economic order quantity model which became evolved to control the ordering of stock was changed by using Baumol a good way to be capable of set goal cash stability (Baumol, 1952). Baumol's model is based on restrictive assumptions regarding the behaviour of cash flows particularly, cash outflows, cash inflows, and the net need for cash arise at a constant and predictable fee using cash flows with these restrictive traits, the goal cash stability is about. The target cash balance minimizes the overall value of retaining cash by using taking transactions and opportunity prices into account.

Baumol's model that's based totally on the assumptions of consistent and predictable cash flows, the Miller-Orr model makes provision for cash drift volatility (Brigham, et al. 1999, Gitman, 1997, Hill and Sartoris, 1992, Scherr, 1989, Gallinger and Healey, 1987, Miller and Orr, 1966, Baumol, 1952).

Whereas the Baumol model is primarily based on assumptions of consistent and predictable cash flows, the Miller-Orr model for determining the goal cash balance has more operational content because it assumes that money flows are situation to volatility, and that the distribution of each day internet cash flows follows a trendless random walk. With this model, control sets the

decrease cash restrict, and the model generates the goal cash balance, as well as the top cash restrict. The Miller-Orr model has been empirically examined and has been discovered to perform fairly nicely. The assumption that the distribution of internet cash flows follows a trendless random stroll can be comfy without dislocating this model.

While the Miller-Orr model specializes in setting the target balance, the Stone model is targeted on the management of cash balances (Brigham, et al. 1999, Gitman, 1997, Hill and Sartoris, 1992, Scherr, 1989, Gallinger and Healey, 1987, Miller and Orr, 1966). The Stone model is a refinement of Miller-Orr model. When the cash role reaches a predetermined level, which is less than the upper restriction and more than the lower restriction, management examines the cash float forecast to ascertain whether or not the actual cash go with the flow stability is probable to breach the higher and decrease limits, unless these limits are probable to be breached, no movement, by way of purchase or sale of marketable securities is taken, by incorporating expectations approximately cash flows inside the on the spot destiny, say five days, the number of transactions is minimized. The control limits and goal level of cash may be set using the Miller-Orr model (Brigham, et al. 1999, Gitman, 1997, Hill and Sartoris, 1992, Scherr, 1989, Gallinger and Healey, 1987).

2.5. Knowledge gap

A number of studies have been done on working capital management as a determinant of profitability and gaps have been established that this study seeks to fill: Atseye (2015) did a study on the determinants of working capital management, this study dealt with specific variables such as size, age, profitability, market share (power), sales growth, operating risk and operating cash flow. This left a gap in which the current study seeks to fill by finding out the effects of accounts

receivables, management of accounts payable, management of inventory and management of cash in agro-firm in Eldoret Business Centre

Morawakage (2010) investigated the relation between the companies' working capital, cost structure and their profitability of Sri Lankan companies. This study used inferential statistics correlation and regression evaluation to find out the relationship between variables. Kaddumi (2012) studied the effect of working capital management (WCM) at the overall performance. The study employed unbalanced data from forty nine Jordanian industrial companies listed at Amman inventory exchange between the years 2005 to 2009 with help of opportunity measures of profitability as well as proxies for the working Capital management,

Makori (2013) examined the effect of working capital control on company's profitability in Kenya for the year ended 2003/2012. For this reason, balanced panel records of five manufacturing and construction companies best performing at the Nairobi Securities trade (NSE). This study used Pearson's correlation and ordinary Least Squares regression methods to establish the working capital control and company's profitability, this look left a gap because it treated the producing businesses indexed the Nairobi Securities change (NSE). Accordingly leaving an opening that the modern-day study seeks to fill by way of doing a case of agro firms in Eldoret enterprise Centre

This study therefore seeks to fill this gap by assessing the effects of working capital management as a determinant of Profitability of agro-firms in Eldoret Business Centre, in Kenya. It will bring out an in-depth understanding of the components of working capital like accounts receivables, management of accounts payable, management of inventory and management of cash with specific interest in agro firms in Eldoret Business Centre, Kenya.

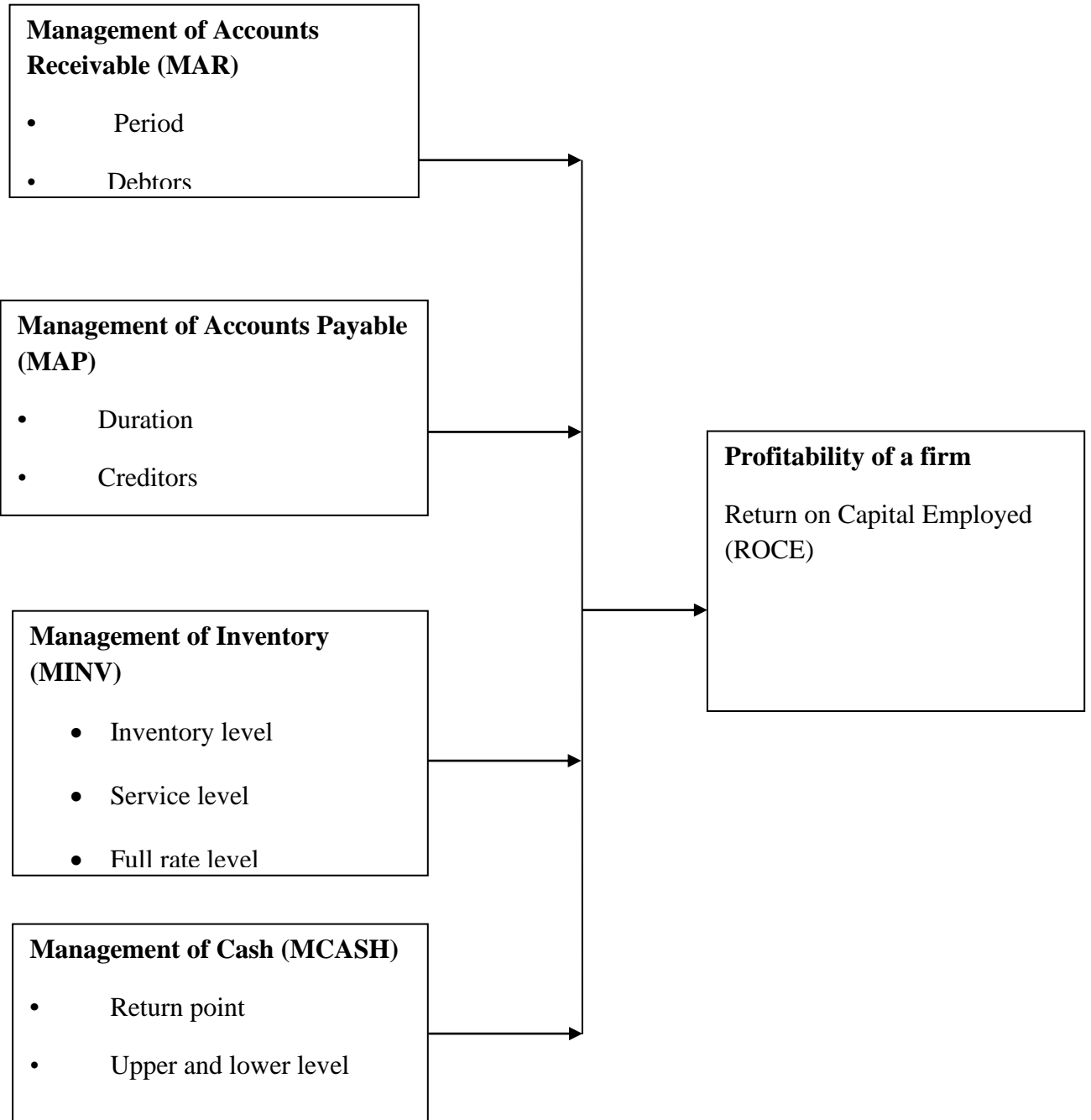
2.6 Conceptual Framework

The study was supported by the conceptual framework which composes of independent variable; working capital management and the dependent variable; profitability of a the firm, as shown in figure 2.1

Independent Variable

Dependent Variable

Figure 2.1: Conceptual framework



Source: Author (2016)

The variables used in this study are independent variable which is working capital management which were operationalized as; management of accounts receivables which considered the management of payment period that is how long does it take the debtors to settle their debts, meaning management of debtors, another proxy was the management of accounts payables, where the study will consider the duration the firms take to clear with their creditors, another term is the management of inventory, where the study considered the level of inventory managed by firms, and lastly on independent variable is the management of cash, where the study will look at the length of time taken to convert all the stock to cash, both in hand and in the bank.

Another variable is dependent variable represented by profitability of a firm. This variable has operationalized as Return on Capital Employed (ROCE), which is a profitability ratio measuring efficiency of a firm thus comparing the operating profits and capital employed, where capital employed represents the total assets minus the total liabilities.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research design

Research design is defined as a master plan that specifies the methods and procedures for collecting and analysing needed information to answer research questions. They include exploratory, explanatory and descriptive approaches (Greener 2008; Zikmund *et al.*, 2010)

This study adopted a descriptive survey design. Descriptive survey involves an investigation of variables that constitute what is happening or what has happened and of which the researcher has no control over (Greener, 2008). Kothari, (2012) Descriptive research includes surveys and fact finding enquiries of different kinds. It describes the data in order to draw conclusions about the population characteristics or phenomenon being studied. The research design according to Kerlinger (2000) allows you to employ both quantitative and qualitative approaches.

3.2 Study area

The study was done on Agro-firms in UasinGishu County Eldoret Business Centre which is located in Rift valley, Kenya. This area covers Eldoret town and its environment which lies within a radius of one kilometre and it is the place where most businesses are conducted on daily. The study covered small scale Agro-firms that are registered by County government of UasinGishu in the year 2015/2016.

3.3 Target Population

Target population refers to the entire group of people, events, or things of interests that the researcher wishes to investigate (Mugenda and Mugenda, (2003),the population is an aggregate of items, the complete group of items about which information weresought; the universe may be finite or infinite. A finite population is one which has a definite number of items. When the number of items is infinite the population is said to be infinite universe or infinite population (Mbwesa 2006).

To determine the target population, the researcher visited the county Government of UasinGishu where she was provided with a list of agro-firms that are registered in Eldoret Business Centre which were a total of fifty one (51) agro-firms in Eldoret Business Centre with a 510 employees as shown in Appendix v. These employees were categorized as follows; managers, Veterinary officers, accountants, sales assistants. Table 3.4 shows a target population.

Table 3.1: Target Population

Employees Categories	Population
Managers	51
Veterinary officers	80
Supervisors	51
Accountants	51
Sales Assistants	277
Totals	510

Source: County Government of UasinGishu (2016)

3.4 Sample Size and Sampling technique

3.4.1 Sampling technique

Trochim, (2005) sampling is the process of selecting a representative sample of elements from the population. To get a representative sample, the researcher used purposive sampling method to sample top managers of Agro- firms, the selection of a study is sample based on experience or knowledge of the group to be sampled. For the case of selecting other employees the researcher used simple random sampling technique as shown by the formula in the next paragraph

In order to determine the sample of other employees the researcher used Yamane's (1967) formulae which are as follows;

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

Where;

n is the sample size,

N is the population size, (459)

e is the level of precision (0.05).

Therefore n=

$$\frac{459}{1 + 459(0.05)^2}$$

n= 214

Therefore, 51 managers were sampled using purposive method. 214 respondents were sampled using simple random sampling that includes: veterinary officers, supervisors, accountants and sales assistants making a total of 265 respondents.

3.4.2 Sample Size

Kothari (2012) defines sample as a sub-group of a population or universe; while sampling is the process used in selection. (Baker, Gandhi, 2007) argues out that a sample should be picked in such a way that it represents the entire population to be investigated. Kothari (2012) explains that the size sample should neither be excessively large or small. An optimal sample is one which fulfils the requirements of efficiency, representatives, reliability and flexibility.

Table 3.2 Sample Size

Employees category	Population	Sample size
Managers	51	51
Veterinary Officers	80	37
Supervisors	51	24
Accountants	51	24
Sales Assistants	277	129
Totals	510	214

Source (Author, 2016).

3.5 Data collection Instrument

The data collection instruments to be used in this study were developed by the researcher. The study used questionnaire; this is a collection of items to which a respondent is expected to react in a written form. The designed questions or items in word format are distributed to the

respondents. This method collects a lot of information over a short period of time. This allowed the respondents to give their own views. The questionnaire was in two parts, general information of the respondents and questions on specific objectives. The 5 point Likert scale structural questionnaire was useful in analysing data in questions that directly involves the attitudes of the respondents.

3.6 Validity and Reliability of research instruments

3.6.1 Validity of Research Instrument

Validity refers to the degree to which research instrument measures what it purports to measure Mugenda and Mugenda, (2003) According to Orodho, (2004) validity in the sense raised is the degree to which the empirical measure of the concepts, accurately measure the concept. The research is purposed to ensure validity of instruments by using simple language free from jargon which made it easily understood by the respondents. Creswell, (2011) supports that validity is the extent to which research instruments measure what they are intended to measure. To validate the questionnaire, the researcher carried out a pilot study to the selected separate respondents, but a similar sample to the one in the study. Besides the pilot study, the experts in research in this case, the supervisors, and colleagues among others were used to examine and give their opinions. The results of the questionnaires piloted enabled the researcher to determine the consistency of responses which were made by respondents and adjusts the items accordingly by revising the document.

3.6.2 Reliability of the Research Instrument

According to Mugenda&Mugenda, (2003) reliability is a measure of the degree to which a research instrument producesreliable results or data after several repeated trials. In the study reliability follows the following steps: the developed questionnaires were given to a few identical respondents subjects not included in the main study, the answered questionnaire was manually answered. After two weeks the same questionnaire was administered to the same group of subjects, meaning that the instrument used in test-retest method. The constructs testing for reliability was achieved by calculating the Cronbach’s alpha. The results are in table 3.3

Table 3.3 Reliability Test of Constructs

Variables	ReliabilityCronbach’s alpha	Comment
Working capital management	.725	Reliable
Management of accounts receivables	.716	Reliable
Management of accounts payable	.797	Reliable
Management of inventory	.781	Reliable
Management of cash	.736	Reliable
Profitability	.781	Reliable

Cronbach Alpha was used to test the reliability of the proposed constructs. The findings indicated that Working capital management had a cronbach's alpha coefficient of 0.725, Management of accounts receivables had a coefficient of 0.716, management of accounts payable 0.797, management of inventory had a coefficient of 0.781, management of cash had a coefficient of 0.736 and profitability had a coefficient of 0.781. This indicated that all the study variables indicated that the values of Cronbach's Alpha are above the suggested value of 0.7 thus the study was reliable (Nunnally& Bernstein, 1994). Sekaran and Bougie, (2010) states that the closer the cronbach's alpha is to 1, the higher the internal consistency of reliability. The measure ranges from 0 to 1, where a value of 1 indicates perfect reliability.

3.7 Data Presentation and Analysis

The data for the study was entered and coded for completeness and accuracy of information with the help of SPSS, data was analysed by tabulating the data using frequency tables. The data was analysed using both inferential and descriptive statistics. Descriptive statistics that included frequencies, percentages, tables and charts, while for inferential statistics. Multiple regression analysis was used to establish the relationship between variables.

Multiple regression has the following assumptions, Normality assumption where multiple regression assumed that all the variables have normal distribution (Kothari, 2012). The errors in the prediction of value Y (the dependent variable) are distributed in a way that approaches the normal curve. Skewness and kurtosis was used to test normality of assumption. Linearity assumption; in this study it was assumed that the relationship between the independent and dependent variables is linear. Linearity can be tested with scatter plots. Homoscedasticity means that the variance of errors is the same across all levels of the independent variables. When the

variances are very unequal, there is said to be heteroscedasticity. It is further assumed that the variance around the regression line is the same for all values of the independent variables. This assumption can be checked by visual examination of a plot of the standardized errors (residuals) by the regression standardized predicted value. Independence is another assumption that assumes that the errors in the prediction of the value of Y are all independent of one another meaning it is not correlated. (StatSoft, 2011) No perfect multicollinearity; there should be no perfect linear relationship between two or more of the predictors. So, the predictor variables should not correlate too highly. Non-zero variance; the predictors should have some variation in value meaning they do not have variances of zero.

The Regression Model is as follows:

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

Where:

Y = Profitability

X₁ = Management of accounts receivables

X₂ = Management of accounts payables

X₃ = Management of Inventory

X₄ = Management of Cash

β = Constant

ε = Error term. (Random variation due to unmeasured factors)

3.8 Ethical Consideration

Participation in this study was completely voluntary. No one was forced to answer questions they do not want. Informed consent seeks to incorporate the rights of autonomous individuals through self-determination. It also seeks to prevent assaults on the integrity of the participants and protect personal liberty and sincerity. Individuals made informed decisions in order to participate in research voluntarily only if they have information on the possible risks and benefits of the research. Free and informed consent incorporated an introduction to the study and its purpose as well as an explanation about the selection of the research subjects and the procedures that were followed. It is essential to describe any physical harm or discomfort, any invasion of privacy and any threat to dignity as well as how the subjects were compensated in that case.

The researcher briefed the participants to make sure that they do not have any problems or concerns with questionnaires. The researcher made sure they answered questions they may have to ensure that they are completely comfortable with research experience.

The intent of this interpretation was that no such “constraint or coercion” must be either explicit or implicit on the part of the investigator. The consideration of the two elements of consent has great impact on the manner in which a study is planned and executed. Each research situation presents a different set of circumstances, and consent procedures must be adapted accordingly. For investigators in certain areas, the type of participants frequently studied requires special consideration and protection. Such participants receive repeated attention in the discussion and examination of consent issues regarding who and when.

CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSIONS

4.1 Response Rate

Two hundred and fourteen respondents were sampled for the study hence the same number of questionnaires was issued. However, out of this number, 205 questionnaires were received out of which 8 were poorly or inappropriately filled and were therefore not used in the analysis. In all a total number of 197 questionnaires were used for analysis and this represents 92.1% response. Table 4.1 depicts the distribution of the responses. The response rate of 92.1% was considered adequate for both the analysis and interpretation of the data and hence used in that regard. This was supported by Survey Monkey. (2009) which stated that the widely acceptable minimum response rate for Face-to-face: studies is at 80-85% is rated as good

Table 4.1 Response Rate

Questionnaires	Actual Response	Response Percentage
Not returned questionnaires	9	4.2%
Poor filled questionnaires	8	3.7%
fully filled returned questionnaires	197	92.1%
Total	214	100%

4.2 Background Information of the Respondents

Descriptive statistics such as frequencies and percentages relating to the socio-demographic characteristics of respondents are presented in table 4.2

Table 4.2 Demographic Characteristics of the Respondents

Variables		Frequency	Percentage
Gender status	Male	120	60.9
	Female	77	39.1
	Total	197	100.0
Age of respondents	20-30 years	95	48.2
	31-40 years	66	33.5
	41-50 years	22	11.2
	Over 50 years	14	7.1
	Total	197	100.0
Level of education	Certificate	26	13.3
	Diploma	109	55.3
	Undergraduate	59	29.9
	Post graduate	3	1.5
	Total	197	100.0

4.2.1 Gender of the Respondents

Regarding the gender of respondents, majority of the respondents 120(60.9%) were male, which is not surprising because most of the people working in the agro- firms in Eldoret business centre

are male due to the nature of work and the long working hours render the industry problematic for female. The female respondents were 77(39.1%).

4.2.2 Age of respondents

The majority of employees of agro firms 95(48.2%) were in the economically active age group of (20-30 years) this is followed by the ages between 31-40 with 66(33.5%), 22(11.2%) and lastly 14(7.1%) were 50 years of age

4.2.3 Level of education

From the respondents level of education, it was shown that there were 26(13.3%) respondents with certificate level of education, 109(55.3%) respondents with diploma level of education, 59(29.9%) with undergraduate qualification and 3(1.5%) had post graduate qualifications. It can therefore be inferred that majority of the respondents have the minimum qualifications due to the fact that respondents were officers, and usually, a minimum level of education is required for such positions. It also indicates that the respondents could be knowledgeable on the study.

4.3 Working Capital Management

This section presents descriptive statistics on respondents' perceptions of working capital management in four key areas namely: management of accounts receivables, management of accounts payable, management of inventory and management of cash. Respondents were asked to indicate the extent to which they agreed to statements relating to working capital management on a five-point likert scale (1 = strongly disagree to 5 = strongly agree) such that when the mean is 2.5 and below it is assumed that the respondents are strongly disagreeing or just disagreeing

,a mean of between 2.5 and 3.5 indicates that the respondents were undecided and in the case where the mean is between 3.5 and 4.5, it is assumed that the respondents are agreeing, and a mean of 4.5 and above indicates that the respondents are strongly agreeing to the statements in the questionnaire. Additionally a Standard deviation tending to be closer to zero suggests that the data tends to be closer to the mean while a higher standard deviation suggests that the data is spread out over a wide range of value indicating a large variability. The descriptive statistics are presented in the section that follows in relation to the study objectives.

This section presents information pertaining to the general information on working capital, as shown in table 4.3

Table 4.3 Working Capital Management

Working Capital Management	N	M	SD
We make purchase using money from daily operations	197	3.84	1.242
We make sales on a daily basis	197	3.96	1.063
Inventory is maintained monthly	197	4.14	1.005
Adequate Working Capital is good for the business	197	4.15	1.099
\bar{X}		4.02	1.102

Where N = Sample size, M = Mean, and SD = Standard deviation

According to the study findings on working capital management as shown from table 4.3, it was observed that a majority of respondents (mean=4.15) agreed that adequate Working Capital is good for the business in Agro firms in Eldoret business centre, followed by (mean=4.14) of the respondents who agreed that inventory is maintained monthly. Further, the study reveals that respondents agreed that the Agro firms in Eldoret business centre make sales on a daily basis, they also agreed that they make purchases using money from daily operations with a mean=3.84. These findings were supported by an overall mean of 4.02 indicating that respondents are agreeing with the information on working capital management at a standard deviation of 1.102 indicating that there was slight variation on the factors of working capital management.

These findings concur with Pandey, (2006) who stipulated that adequate capital permits carrying of inventories at a level that will allow a business to serve reasonably to customer requirement, enabling a company to offer favourable credit terms, to operate its business more efficiently. Padachi (2006) further states that management of working capital is vital for the monetary health of all businesses, no matter kind and size.

Deloof, (2003) states that working capital management guarantee enough ability of the firm to continue with its activity and to incur operational expenses. He further states that, working capital is investment wished from the time among time of purchase of uncooked substances and the sale of completed merchandise. Its management involves accounts receivables, accounts payables, inventories and cash. Therefore, the nature of flows makes management of working capital important in understanding liquidity needs of the company

4.4 Management of Accounts Receivables

This section presents information pertaining to management of accounts receivables, as shown in table 4.4

Table 4.4 Management of Accounts Receivables

Management of Accounts Receivables	N	M	SD
Our customers are those who deal with cash and carry	197	3.84	1.398
There is no harm in selling to customers on credit	197	4.04	1.190
Debtors are given less than 30 days to settle their debts	197	4.33	0.962
We have to follow credit policy on the payments of debts	197	4.12	1.062
Debtors are given less than 60 days to settle their debts	197	3.78	1.278
\bar{X}		4.03	1.1708

Where N = sample size, M = Mean, and SD = Standard deviation

According to Grzergorz, (2008) accounts receivables are customers who have not made payment for goods which the company has supplied, the receivables are a vital factor of current assets. The purpose of management of debtor is to reduce the time between sales and receipt of payment.

Table 4.4 shows that generally, respondents were in agreement to most of the statements regarding the effect of management of accounts receivables on agro-firm's profitability in Eldoret business centre, on whether agro firms' customers are those who deal with cash and carry, the respondents agreed with a Mean of 3.84 at a standard deviation of 1.398. on whether there is no harm in selling to customers on credit the respondents agreed at a mean of 4.04 and standard deviation of 1.190, further the respondents were asked whether debtors are given less than 30 days to settle their debts and the respondents agreed with a mean of 4.33 and standard deviation of 1.190, also the response on the issue that agro firms in Eldoret business centre have to follow credit policy on the payments of debts, the respondents agreed with a mean of 4.12 and standard deviation of 1.062. Lastly on whether debtors are given less than 60 days to settle their debts the respondents agreed with a mean of 3.78 and a standard deviation of 1.278.

These findings were supported by an overall mean of 4.03 indicating that respondents are agreeing with information on the effect of management of accounts receivables on agro-firm's profitability and standard deviation of 1.1708 indicating there was slight variation on the effect of management of accounts receivables on agro-firm's profitability in Eldoret business centre.

This once again is supported by Maness & Zietlow, (2005). Who stated that being active the collection process of accounts receivables should be among other things that help shorten down the cash flow timeline minimizing the risk for liquidity problems. The interest for this study is to assess whether this type of practice is profitable in a time of financial instability.

Further Grzegorz, (2008), stated that Receivables are directly affected by the credit collection policy of the firm and the frequency of changing the receivables into cash in management of working capital. By granting the customers more liberal credit terms, profitability will be high

but at the same time liquidity will be sacrificed. Karlsson (1996) indicated that loans granted to clients by the firms and the assets of the firm are called accounts receivables. When there is a build-up of receivables, resources are scarce; in other words the resources will be put into more efficient use within the company and earn a return.

4.5 Management of Account Payables

This section presents information pertaining to management of accounts Payables, as shown in table 4.5

Table 4.5 Management of Account Payables

Management of Account Payables	N	M	SD
Our creditors use cash on delivery method in supplying products	197	3.79	1.271
It is beneficial if we purchase our products on credit because it increases our profitability	197	3.79	1.256
We strictly follow the trade credit policy when making payment to our suppliers	197	4.24	0.904
It takes us one month to pay our suppliers	197	4.14	0.967
It takes us more than 3 months to pay our suppliers	197	3.80	1.268
\bar{X}		3.96	1.128

Where N = Sample size, M = Mean, and SD = Standard deviation

According to Maness, (1994) and Scherr, (1989)Accounts payables, arise directly from the business's operations and represent a valuable source of internal spontaneous short term financing that is unsecured and flow of cash. Gallinger and Healey, (1987) indicates that accounts payable is the largest for cash outflow in many firms.

Table 4.5 shows that generally, most respondents were in agreement with most of the statements regarding the effect of management of accounts payable in Agro-firms on profitability in Eldoret business centre. The results on whether agro firms creditors use cash on delivery method in supplying products, the respondents agreed with a Mean of 3.79 at a standard deviation of 1.271. on whether it is beneficial if agro firms purchase products on credit because it increases profitability the respondents agreed with a mean of 3.79 at a standard deviation of 1.256, further the respondents were asked whether agro firms strictly follow the trade credit policy when making payment to our suppliers the respondents agreed with a mean of 4.24 at a standard deviation of 0.904, also the response on the issue that agro firms take one month to pay our suppliers, the respondents agreed with a mean of 4.14with a standard deviation of 0.967. Lastly on whether it takes them more than 3 months to pay suppliers, the respondents agreed with a mean of 3.80with a standard deviation of 1.268.

These findings were supported by an overall mean of 3.96 indicating that the respondents are agreeing with the information on the effect of management of accounts payables on agro-firm's profitability in Eldoret business centre at a standard deviation of 1.128indicating that there was slight variation on the effect of management of accounts payables on agro-firm's profitability.

The findings are in line with Fraser, (1996). Who indicated that accounts payable comes in due to the unsynchronized timing of allocation of goods and the services, to the extent that payment occurs after receiving goods and services, credit, which is a source of funds, has been created. Further Dolfe&Koritz (1999) states that a company's short-term debt is very much determined by the money paid and the main part of this cash flow consists of accounts payables. Changing the routines which can give the company great savings, usually in the form of interest and a reduction on penalty interest and step to better the payment process is to retain firm funds in a safe account for long until payment to get interest is possible.

4.6 Management of Inventory

This section presents information pertaining to the management of inventory, as shown in table 4.6

Table 4.6 Management of Inventory

Management of Inventory	N	M	SD
Only the manager makes decision on the type of inventory to purchase	197	3.66	1.359
The stock we deal with is very durable	197	3.85	1.171
We maintain small level of inventory in the firm and this increases our profits very fast	197	4.22	0.975
We maintain medium level of inventory and this increases our profitability	197	4.07	1.033
We maintain a large number of inventory and this increases our profitability	197	3.83	1.246
\bar{X}		3.93	1.156

Where N = Sample size, M = Mean and SD = Standard deviation

According to Long *et al.*, (1993), Deloof and Jegers, 1996) maintaining large stock shows that capital is used in financing and to cover different costs. However, companies investing in stock and trade credit can suffer reduced profitability. Further, larger stock lowers the risk of stock-out. Trade credit may excite sales because it allows customers to assess quality of product before making payment.

Table 4.6 shows that generally, respondents were in agreement to most of the statements regarding the effect of management of inventory on agro-firm's profitability in Eldoret Business Centre. The results on whether agro firms' manager makes decision on the type of inventory to purchase was agreed with a Mean of 3.66 and standard deviation of 1.359. on whether the stock dealt with is very durable, the respondents agreed at a mean of 3.85 and standard deviation of 1.171, further the respondents were asked whether agro firms maintain small level of inventory in the firm hence increasing profits very fast, the respondents agreed with a mean of 4.22 and standard deviation of 0.9975, also the response on the issue that agro firms maintain medium level of inventory and this increases profitability, the respondents agreed with a mean of 4.07 and standard deviation of 1.033. Lastly on whether agro firms maintain a large number of inventories hence increasing profitability, the respondents agreed with a mean of 3.84 and standard deviation of 1.242.

These findings were supported by an overall mean of 3.928 indicating that respondents are agreeing with the information on the effect of management of inventory on agro-firm's profitability in Eldoret business centre and standard deviation of 1.156 indicating that there was slight variation on the effect of management of inventory on agro-firm's profitability.

These findings are supported by Deloof, (2003) who stated that management of stock is an important department that improves the flow of cash of a firm as it portrays pools of cash. Nelson (1977) stated that one easy way of improving management of stock is to focus on sales forecasting and adapting a control system for this area, he states that by accurately forecasting sales, stock levels can be cut down and cash levels can improve.

4.7 Management of Cash

This section presents information pertaining to management of cash, as shown in table 4.7

Table 4.7 Management of Cash

Management of Cash	N	M	SD
Poor management of Cash has a negative effect on profitability	197	3.77	1.368
Proper management of Cash has a positive effect on profitability	197	4.06	1.084
Setting credit policy will help in profit making	197	4.35	0.905
It takes less than a month for purchases to be converted to cash	197	4.18	1.014
It takes less than two months for purchases to be converted to cash	197	3.82	1.255
\bar{X}		4.04	1.123

Where N = Sample size, M = Mean and SD = Standard deviation

According to Brigham, et al. (1999) Cash and marketable securities have to be managed if an organization wants to achieve stability among the danger of insufficient liquid or near liquid sources, and the value of maintaining excessively excessive stages of those sources.

In table 4.7, management of cash as compared to management of accounts payables, management of accounts receivables and inventory managements, it appears to be serious on cash management since majority of the respondents agreed to all the statements relating to the

effect of management of cash on agro-firm's profitability in Eldoret Business Centre. These were with regard to the fact that poor management of Cash has a negative effect on profitability with a Mean of 3.77 and standard deviation of 1.368. Proper management of Cash has a positive effect on profitability in agro firms in Eldoret business centre, and this was supported by a mean of 4.06 at a standard deviation of 1.084.

Further the mean score of 4.35 suggests that, there was an agreement on the question that employees of agro firms in Eldoret business centre set a credit policy which will help in profit making, on whether it takes less than a month for purchases to be converted to cash, the respondents agreed at a mean of 4.18 and a standard deviation of 1.014, lastly the respondents agreed that it takes less than two months for purchases to be converted to cash with a mean of 3.82 at a standard deviation of 1.255.

These findings were supported by an overall mean of 4.04 indicating that the respondents were agreeing with the information on the effect of management of cash on agro-firm's profitability in Eldoret business centre at a standard deviation of 1.123 indicating that there was slight variation on the effect of cash management on agro-firm's profitability in Eldoret business centre.

These findings are consistent to Miller-Orr model which states that cash balance has more operational content because it assumes that money flows are situation to volatility, and that the distribution of each day internet cash flows follows a trendless random walk. With this model, control sets the decrease cash restrict, and the model generates the goal cash balance, as well as the top cash restrict

Further Baumol's model is based on restrictive assumptions regarding the behaviour of cash flows particularly, cash outflows, cash inflows, and the net need for cash arises at a constant and predictable fee using cash flows with these restrictive traits, the goal cash stability is about. The target cash balance minimizes the overall value of retaining cash by using taking transactions and opportunity prices into account.

4.8 Management of Profitability

This section presents information related to management of profitability, as shown in table 4.8

Table 4.8 Management of Profitability

Management of Profitability	N	M	SD
We realize profitability when debtors settle their debts	197	3.85	1.171
Management of inventory has helped us improve on our profitability	197	4.22	.975
Management of Cash help the firm to generate and increase its profits	197	4.07	1.033
After paying all our expenses, we don't get any profits	197	3.84	1.242
After paying all our expenses, we still have profits	197	3.74	1.305
\bar{X}		3.96	1.118

Where N = Sample size, M = Mean and SD = Standard deviation

According to Gitman, (1997) organizations management considers profitability as an important input when planning the organizational operations, whereas creditors and shareholders look at profitability to determine the returns on their investment in the business and assess the risks of their investments, which may be affected by the industry structure and the nature of the competitive environment.

From the results in table 4.9 it can be revealed that, agro firms in Eldoret business centre realize profitability when debtors settle their debts with a mean of 3.85 and standard deviation of 1.171, Management of inventory has helped improve on profitability was supported by a mean of 4.22 and a standard deviation of 0.975, Management of Cash help the firm to generate and increase its profits with a mean of 4.07 and standard deviation of 1.033, After paying all the expenses, profits are not realised and this statement was supported by a mean of 3.84 at a standard deviation of 1.242 and after paying all our expenses, profits are realized had a mean of 3.74 and standard deviation of 1.255. The overall average mean was 3.966 meaning that most of the respondents agreed on the management of profitability at a standard deviation of 1.118 suggesting that the standard deviation was lower indicating that the data tends to be closer to the mean, hence there was slight variation in the agreement on the management of profitability.

These results are supported by Ehrhardt & Brigham, (2004) who stated that when firms are in financial difficulties their value and profitability fall because the fear of bankruptcy and the costs that go with it move the shareholders to dispose of their shares quickly even at the lowest price possible. This results in the reduction of the firm's value and profitability during the period of financial distress. Further Butt *et al*, (2010) and Ibenta, (2005) stated that the return on assets

influences the efficiency of management to use assets to generate earnings. They further state that the main purpose or objective of any firm is to maximize profit and maintain the liquidity of the firm.

4.9. Inferential Statistics

The study employed regression to examine the change of dependent variable explained by the effect of independent variable. Analysis of Variance (ANOVA) was used to test the statistical significance of the regression model

4.9.1 Tests for Regression Analysis Assumptions

4.9.1 1. Normality

Normality assumption states that all the study variables have normal distributions. Non-normally distributed variables can distort relationships and significance tests. This study will use Kolmogorov-Smirnov tests to test the normality of data with a prediction value of 0.05 such that the Significant value of the Shapiro-Wilk Test is less than 0.05 and this indicates the normality of data, when it is greater than 0.05, the data significantly deviate from a normal distribution.

This is shown in table 4.9

Table 4.9 One-Sample Kolmogorov-Smirnov Test

		Accounts receivables	Accounts payable	Inventory management	Cash management
N		197	197	197	197
Normal Parameters ^{a,b}	Mean	4.02	4.08	3.99	3.95
	Std. Deviation	0.705	0.731	0.794	0.816
	Absolute Positive	0.210	0.181	0.217	0.256
Most Differences	Extreme Negative	0.106	0.109	0.128	0.114
		-0.210	0-.181	-0.217	-0.256
Kolmogorov-Smirnov Z		2.948	2.540	3.050	3.596
Asymp. Sig. (2-tailed)		0.000	0.000	0.000	0.000

a. Test distribution is Normal.

b. Calculated from data.

From table 4.9, the Kolmogorov-Smirnov Test revealed that the data used in this study was normally distributed and hence can be subjected to other statistical tests of significance used to test the relationship between dependent and independent variables of the study.

4.9.1.2 Multicollinearity Test

Before the analysis, a multicollinearity diagnostic test was conducted to ensure that the data was suitable for logistic regression analysis. Multicollinearity assumption explains the state in which the study explanatory variables are linearly related.

From the study the regression model estimates of the coefficients emerge as volatile and the standard errors for the regression coefficients can get wildly inflated. The tolerance is an indication of the percent of variance in the predictor variables that cannot be accounted for, subsequently very small values suggest that a predictor is redundant, and values which might be less than 0.10 may merit further investigation. The VIF, which stands for variance inflation factor, is $(1 / \text{tolerance})$ and on the whole of thumb a variable whose VIF values is greater than 10 may merit further investigation. From Table 4.10, it can be revealed that the VIF values were equal to or less than 10 rendering the variables suitable for the regression analysis.

Table 4.10 Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Accounts Receivables	0.326	3.067
Accounts payable	0.198	5.052
Inventory management	0.176	5.682
Cash management	0.141	7.077

4.9.1.3. Homoscedasticity Test

Homoscedasticity assumes that the dependent variable show an equivalent level of variance across the range of predictor variable. Homoscedasticity is one of the assumptions required for multivariate analysis, to test the assumption of homoscedasticity. If there is no autocorrelation,

the Durbin-Watson statistic should be between 1.5 and 2.5. Some statistical tests, for example the analysis of variance, assume that variances are equal across groups or samples. Durbin-Watson statistic was employed to assess the equality of the variances for the four variables calculated, that is management of accounts receivables, management of accounts payable, management of inventory and management of cash. From table 4.11, the resulting the Durbin-Watson statistics is 1.962 which is between 1.5 and 2.5 and therefore there is an equivalent level of variance across the range of predictor variable.

Table 4.11 Homoscedasticity Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.930 ^a	.864	.862	.268	1.962

a. Predictors: (Constant), accounts receivables, accounts payables, management of Inventory and management of Cash

b. Dependent Variable: profitability

4.9.1.4 Assumption of linearity

Linearity assumption; in this study was assumed that the relationship between variables is linear. From the study Pearson product moment correlation was used to assess the linearity among the variables of the study which include; management of accounts receivables, management of accounts payables, management of inventory and management of cash. From the results in table 4.12 there was positive relationship between the dependent and independent variables of the study thus assumption of linearity was supported

Table 4.12 Assumption of linearity

		Accounts receivables	Accounts payable	Inventory management	Cash management	profitability
Accounts receivables	Pearson Correlation	1				
Accounts payable	Pearson Correlation	.738**	1			
Inventory management	Pearson Correlation	.756**	.858**	1		
Cash management	Pearson Correlation	.807**	.871**	.873**	1	
Profitability	Pearson Correlation	.800**	.870**	.856**	.905**	1

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

4.9.2 Test of Hypothesis

From the study a multiple linear regression model was conducted to test the effect among the study variables; management of accounts receivables, management of accounts payables, management of inventory, management of cash and profitability in agro firms in Eldoret business centre.

4.9.2.1 Linear regression model of accounts receivables and profitability

The linear regression analysis was used to test for the relationship between the dependent variable which is profitability and independent variable which is accounts receivables. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between profitability and accounts receivables of agro firms in Eldoret business centre. From table 4.13 the regression analysis indicate that $R^2 = 0.641$ and $R = 0.800$. R value gives an indication that there is a stronger association between profitability and accounts receivables. The

R² indicates that explanatory power of the independent variables is 0.641. This means that about 64.1% of the variation in profitability is explained by the unit change in accounts receivables

Table 4.13 Model Summary of management level of accounts receivables and profitability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.800 ^a	.641	.639	.434

a. Predictors: (Constant), accountants receivables

Table 4.13 shows the results of ANOVA test which reveal that accounts receivables has significant effect on profitability of agro firms in Eldoret business centre. Since the P value is 0.000 which is less than 5% level of significance. It implies that the model was significant. The study therefore rejected the first null hypothesis;

Table 4.14 ANOVA of management level of accounts receivables and profitability

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	65.483	1	65.483	347.817	.000 ^b
1	Residual	36.712	195	.188		
	Total	102.195	196			

a. Dependent Variable: profitability

b. Predictors: (Constant), accountants receivables

The table 4.15 indicates there was significant relationship between management of accounts receivables and agro-firm's profitability in Eldoret Business Centre, this was supported by-

values of 0.000, and this indicated that a unit increase in management of accounts receivables leads to increased profitability. This is supported by Grzergorz, (2008) whose contributions are that receivables are directly affected by the credit collection policy of the firm and the frequency of changing the receivables into cash in management of working capital. By granting the customers more liberal credit terms, profitability will be high but at the same time liquidity will be sacrificed.

Table 4.15 Coefficientsofmanagement level of accounts receivables and profitability

Model	Unstandardized		Standardized	t	Sig.
	Coefficients				
	B	Std. Error	Beta		
(Constant)	.792	.179		4.416	.000
1 accounts receivables	.819	.044	.800	18.650	.000

a. Dependent Variable: profitability

4.9.2.2 Linear regression model of accounts payable and profitability

The linear regression analysis was used to test for the relationship between the dependent variable which is profitability and independent variable which is accounts payables. From the study the coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between profitability and accounts payables of agro firms in Eldoret business centre. From table 4.16 the regression analysis indicate that $R^2 = 0.758$ and $R = 0.870$. R value gives an indication that there is a strong linear relationship between profitability and accounts payables.

The R² indicates that explanatory power of the independent variables is 0.758. This means that about 75.8% of the variation in profitability is explained by the unit change in accounts payables.

Table 4.16 Model Summary of management level of accounts payables and profitability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.870 ^a	.758	.756	.356

a. Predictors: (Constant), accounts payables

Table 4.17 shows the results of ANOVA test which reveal that accounts payables has significant effect on profitability of agro firms in Eldoret business centre. Since the P value is 0.000 which is less than 5% level of significance. It implies that the model was significant. The study therefore rejected the null hypothesis;

Table 4.17 ANOVA of management level of accounts payables and profitability

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	77.430	1	77.430	609.663	.000 ^b
1	Residual	24.766	195	.127		
	Total	102.195	196			

a. Dependent Variable: profitability

b. Predictors: (Constant), accounts payables

The table 4.18 indicates there was significant relationship between management of accounts payables and agro-firm's profitability in Eldoret Business Centre; this was supported by p values of 0.000, and this indicated that a unit increase in management of accounts payables leads to increased profitability. This concurs to study of Maness, (1994) and Scherr, (1989) who indicated that accounts payables, arise directly from the business's operations and represent a valuable source of internal spontaneous short term financing that is unsecured and flow of cash.

Table 4.18 Coefficients of management level of accounts payables and profitability

Model	Unstandardized		Standardized	t	Sig.	
	Coefficients		Coefficients			
	B	Std. Error	Beta			
1	(Constant)	.576	.145		3.988	.000
	A/payable	.860	.035	.870	24.691	.000

a. Dependent Variable: profitability

4.9.2.3 Linear regression model of management of Inventory and profitability

The linear regression analysis was used to test for the relationship between the dependent variable which is profitability and independent variable management of Inventory. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between profitability and management of Inventory of agro firms in Eldoret business centre. From table 4.19 the regression analysis indicate that $R^2 = 0.733$ and $R = 0.856$. R value gives an indication that there is a strong linear relationship between profitability and management of Inventory. The R^2 indicates that explanatory power of the independent variables is 0.733. This

means that about 73.3% of the variation in profitability is explained by the unit change in management of Inventory.

Table 4.19 Model Summary of management level of Inventory and profitability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.856 ^a	.733	.732	.374

a. Predictors: (Constant), management of Inventory

Table 4.19 shows the results of ANOVA test which reveal that management of Inventory has significant effect on profitability of agro firms in Eldoret business centre. Since the P value is 0.000 which is less than 5% level of significance. It implies that the model was significant. The study therefore rejected the null hypothesis;

Table 4.20 ANOVA of management level of Inventory and profitability

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	74.912	1	74.912	535.418	.000 ^b
1	Residual	27.283	195	.140		
	Total	102.195	196			

a. Dependent Variable: profitability

b. Predictors: (Constant), management of Inventory

The table 4.21 indicates there was significant relationship between management of Inventory and agro-firm's profitability in Eldoret Business Centre; this was supported by a p-values of 0.000, and this indicated that a unit increase in management of Inventory leads to increased profitability. This is consistent with Longet *et al.*, (1993), Deloof and Jegers, 1996) who stated that maintaining a large stock shows that capital is used in financing and covers different costs, however, companies investing in stock and trade credit can suffer reduced profitability

Table 4.21 Coefficients of management level of Inventory and profitability

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.981	.137	7.166	.000	
	Management of Inventory	.779	.034	.856	23.139	.000

a. Dependent Variable: profitability

4.9.2.4 Linear regression model of management of Cash and profitability

The linear regression analysis was used to test for the relationship between the dependent variable which is profitability and independent variable management of Cash. The coefficient of determination (R^2) and correlation coefficient (R) shows the degree of association between profitability and management of Cash of agro firms in Eldoret business centre. From table 4.22 the regression analysis indicate that $R^2 = 0.819$ and $R = 0.905$. R value gives an indication that

there is a strong linear relationship between profitability and management of Cash. The R^2 indicates that explanatory power of the independent variables is 0.819. This means that about 81.9% of the variation in profitability is explained by the unit change in management of cash.

Table 4.22 Model Summary of management level of Cash and profitability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.905 ^a	.819	.818	.308

a. Predictors: (Constant), management of Cash

Table 4.23 shows the results of ANOVA test which reveal that management of Cash has significant effect on profitability of agro firms in Eldoret business centre, Since the P value is 0.000 which is less than 5% level of significance. It implies that the model was significant. The study therefore rejected the null hypothesis;

Table 4.23 ANOVA of management level of Cash and profitability

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	83.713	1	83.713	883.203	.000 ^b
1	Residual	18.483	195	.095		
	Total	102.195	196			

a. Dependent Variable: profitability

b. Predictors: (Constant), management of Cash

The table 4.24 indicates there was significant relationship between management of Cash and agro-firm's profitability in Eldoret Business Centre; this was supported by a p values of 0.000, and this indicated that a unit increase in management of Cash leads to increased profitability. These findings are supported by Schilling, 1996, Scherr, 1989, Cheatham, (1989) who indicated that cash and marketable securities have to be managed if an organization wants to achieve stability among the danger of insufficient liquid or near liquid sources, and the value of maintaining excessively excessive stages of those sources

Table 4.24 Coefficientsofmanagement level of Cash and profitability

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.924	.109		8.502	.000
1 management of Cash	.801	.027	.905	29.719	.000

a. Dependent Variable: profitability

4.9.2.5. Overall regression analysis

The linear regression models the relationship between the dependent variable profitability and the independent variables accounts receivables, accounts payables, management of Inventory and management of Cash. The results in table 4.24 indicate $R^2 = 0.861$ and $R = 0.928$. R value points to a strong linear relationship between accounts receivables, accounts payables, management of Inventory and management of Cash on one side and the profitability of agro firms in Eldoret

town, The R^2 indicates that explanatory power of the independent variables is 0.861. This means that about 86.1% of the variation in profitability is explained by the study model but 13.9% of the variation in profitability is unexplained by the model

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

The study also indicates an adjusted R^2 of 0.858 which is slightly lower than the R^2 value; this indicates the relationship between the independent and the dependent variable. The adjusted R^2 of 0.858 indicates that 85.8% of the changes in the profitability is explained by the model. This implies that the influence of all the independent variables in the study that is: accounts receivables, accounts payables, management of Inventory and management of Cash on the profitability of agro firms in Eldoret town is strong.

Table 4.25 Overall Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.928 ^a	.861	.858	.272

a. Predictors: (Constant), accounts receivables, accounts payables, management of Inventory and management of Cash

The ANOVA test in table 4.26 on the overall model indicates that the independent variables (accounts receivables, accounts payables, management of Inventory and management of Cash) have a significant effect on the profitability of agro firms in Eldoret business centre since the p value is 0.000 which is less than 0.05 significance level, This therefore implies that accounts receivables, accounts payables, management of Inventory and management of Cash significantly affect the profitability of agro firms in Eldoret business centre

Table 4.26 Overall ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.955	4	21.989	296.465	.000 ^b
	Residual	14.241	192	.074		
	Total	102.195	196			

a. Dependent Variable: profitability

b. Predictors: (Constant), accounts receivables, accounts payables, management of Inventory and management of Cash

As shown in table 4.27, the regression weights of all the independent variables were significant. This means that all of the postulated hypotheses were not supported. Thus management of accounts receivables $p=0.001$, management of accounts payables $p=0.000$, management of Inventory $p=0.026$ and management of Cash $p=0.000$ are predictor variables for profitability of agro firms in Eldoret business centre. The standardized coefficients indicate the corresponding change in the dependent variable when a change of one unit is effected in the independent variable. Thus, a unit change of accounts receivables will lead to a 15.7 % improvement of profitability of agro firms; a unit change of accounts payable would lead to a 26.0% improvement of profitability, further a unit change in the management of inventory would result in a 12.4% improvement in profitability of agro firms and a unit change of management of cash would lead to 38.3% improvement of profitability.. Besides, the magnitude of the t values indicates that management of cash ($t= 6.305$) is the main predictor variable for organizational

productivity this is followed by accounts payable management (t= 4.377) then accounts receivables (t= 3.309) and finally management of inventory(t= 2.237).

Table 4.27 Overall Coefficients between the study variables

Model	Unstandardized		Standardized	t	Sig.
	Coefficients				
	B	Std. Error	Beta		
(Constant)	.385	.122		3.147	.002
Accounts receivables	.157	.048	.154	3.309	.001
1 Accounts payable	.260	.059	.263	4.377	.000
Management of inventory	.124	.056	.137	2.237	.026
Management of cash	.383	.061	.433	6.305	.000

a. Dependent Variable: profitability

The regression equation becomes

$$\text{Profitability} = 0.385 + 0.157 \text{ AR} + 0.260 \text{ AP} + 0.124 \text{ MI} + 0.383 \text{ MC}$$

4.9.3 Summary of Results for Hypotheses Testing

The summary of results for hypothesis testing was done with a significance level of 0.05 and, as shown in table 4.28

Table 4.28 Summary of Results for Hypotheses Testing

Hypotheses	Results	Effect of Test
H ₀₁ : There is no significant relationship between management of accounts receivables and agro-firm's profitability in Eldoret Business Centre.	$\beta = 0.819,$ P=0.000.	H ₀₁ : Rejected
H ₀₂ : There is no significant relationship between management of accounts payables and agro-firm's profitability in Eldoret Business Centre.	$\beta = 0.860,$ P=0.000	H ₀₂ : Rejected
H ₀₃ : There is no significant relationship between management of Inventory and agro-firm's profitability in Eldoret Business Centre.	$\beta = 0.779,$ P=0.000	H ₀₃ : Rejected
H ₀₄ : There is no significant relationship between management of Cash and agro-firm's profitability in Eldoret Business Centre.	$\beta = 0.801,$ P=0.000	H ₀₄ : Rejected

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the findings

The following are the major findings of the study as per the objectives:

5.1.1 Working Capital Management and Profitability

From the study the findings on working capital had a significant relationship with profitability, indicated that, adequate Working Capital is good for the business in Agro firms in Eldoret business centre, inventory is maintained monthly. Further, the study reveals that the Agro firms in Eldoret business centre make sales on a daily basis, they also agreed that they make purchase using money from daily operations. These findings indicated that there was slight variation on the factors of working capital management.

These findings are supported by Pandey, (2006) who stipulated that adequate capital permits carrying of inventories at a level that will allow a business to serve reasonably to customer requirement, enables a company to offer favourable credit terms, to operate its business more efficiently. Padachi (2006) further states that management of working capital is vital for the monetary health of all businesses, no matter kind and size.

Deloof, (2003) states that working capital management guarantee enough ability of the firm to continue with its activity and to incur operational expenses. He further states that, working capital is investment needed from the time of purchasing raw materials and the sale of finished products. Its control includes accounts receivables, accounts payables, inventories and cash.

Therefore, the nature of flows makes management of working capital important in understanding liquidity needs of the company

5.1.2 Management of Accounts Receivables and Profitability

The findings on the effect of management of accounts receivables, the study indicated that, there is a strong association between management of accounts receivables and agro-firm's profitability in Eldoret Business Centre. According to Grzegorz, (2008) accounts receivables are customers who have not made payment for goods which the company has supplied, they receivables are a vital factor of current assets.

This concurs with the findings by Maness & Zietlow, (2005). Who stated that being active the collection process of accounts receivables should be among other things that help shorten down cash flow timeline minimizing the risk for liquidity problems. The interest for this study is whether this type of practices is profitable in a time of financial instability. Further Grzegorz, (2008), stated that Receivables are directly affected by the credit collection policy of the firm and the frequency of changing the receivables into cash in management of working capital. By granting the customers more liberal credit terms, profitability will be high but at the same time liquidity will be sacrificed. Karlsson (1996) indicated that loans granted to clients by the firms and the assets of the firm are called accounts receivables. When there is a build-up of receivables, resources are scarce that will in other words be put into more efficient use within the company and earn a return.

5.1.3 Management of Account Payables and Profitability

Further the findings on management of accounts payables, indicated that, there is a significant relationship between management of accounts payables and agro-firm's profitability in Eldoret Business Centre. Maness, (1994) and Scherr, (1989) indicated that Accounts payables, arise directly from the business's operations and represent a valuable source of internal spontaneous short term financing that is unsecured and flow of cash. Gallinger and Healey, (1987) indicates that accounts payable is the largest for cash outflow in many firms.

These findings were supported by an overall mean of 3.95 indicating that the respondents are agreeing with the information on the effect of management of accounts payables on agro-firm's profitability at a standard deviation of 1.128 indicating that there was slight variation on the effect of management of accounts payables on agro-firm's profitability.

This concurs with the findings by Fraser, (1996). Who indicated that accounts payable comes in due to the unsynchronized timing of allocation of goods and the services, to the extent that payment occurs after receiving goods and services as well as credit, which is a source of organizational funds, has been created. Further Dolfe&Koritz (1999) states that a company's short-term debt is very much determined by the money paid and the main part of this cash flow consists of accounts payables. Changing the routines which can give the company great savings, usually in the form of interest and a reduction on penalty interest and step to better the payment process is to retain firm funds in a safe account for long until payment to get interest is possible.

5.1.4 Management of Inventory and Profitability

On the management of inventory, the study findings indicated that, there is a significant relationship between management of Inventory and agro-firm's profitability in Eldoret Business Centre. According to Long *et al.*, (1993), Deloof and Jegers, 1996) maintaining a large stock shows that capital used in financing and to cover different costs, however, companies investing in stock and trade credit can suffer reduced profitability. Further, larger stock lowers the risk of stock-out. Trade credit may excite sales because it allows customers to assess quality of product before making payment.

The study findings indicated that, respondents were in agreement to most of the statements regarding to the effect of management of inventory on agro-firm's profitability in Eldoret Business Centre. And these findings are supported by Deloof, (2003) who stated that management of stock is an important department that improves the flow of cash of a firm as it portrays pools of cash. Nelson (1977) stated that one easy way of improving management of stock is to focus on sales forecasting and adapting a control system for this area, he states that by accurately forecasting sales, stock levels can be cut down and cash levels can improve.

5.1.5 Management of Cash and Profitability

Pertaining to management of cash, the study indicated that, there is a significant relationship between management of Cash and agro-firm's profitability in Eldoret Business Centre. According to Brigham, et a. 1999) Cash and marketable securities have to be managed if an organization wants to achieve stability among the danger of insufficient liquid or near liquid sources, and the value of maintaining excessively excessive stages of those sources. The study indicated Agro

firms in Eldoret business centre appears to be serious on cash management as compared to management of accounts payable, management of accounts receivable and inventory management since majority of the respondents agreed to all the statements relating to effect of management of cash on agro-firm's profitability in Eldoret Business Centre.

These findings were supported by an overall mean of 4.04 indicating that the respondents are agreeing with the information on the effect of management of cash on agro-firm's profitability at a standard deviation of 1.123 indicating that there was slight variation on the effect of cash management on agro-firm's profitability.

These findings are consistent to Miller-Orr model which states that cash balance has more operational content because it assumes that money flows are situation to volatility, and that the distribution of each day internet cash flows follows a trendless random walk. With this version, control sets the lower cash limit, and the model generates the purpose cash stability, in addition to the pinnacle cash limit

Further Baumol's model is based on restrictive assumptions regarding the behaviour of cash flows particularly, cash outflows, cash inflows, and the net need for cash arise at a constant and predictable fee using cash flows with these restrictive traits, the goal cash stability is about. The target cash balance minimizes the overall value of retaining cash by using taking transactions and opportunity prices into account.

5.1.6 Management of Profitability

Regarding management of profitability, it was revealed that, agro firms in Eldoret business centre realize profitability when debtors settle their debts, Management of inventory has helped the firms improve on our profitability was supported, also management of Cash help the firm to generate and increase its profits. According to Gitman, (1997) organizations management considers profitability as an important input when planning the operations of the enterprise, whereas creditors and shareholders observe profitability to decide the returns on their investment in the business and examine the risks in their investments which may be affected by the industry structure and the nature of the competitive environment.

These results concur with Ehrhardt & Brigham, (2004) who stated that when firms are in financial difficulties their value and profitability fall because the fear of bankruptcy and the costs that go with it move the shareholders to dispose of their shares quickly even at the lowest price possible. This results in the reduction of the firm's value and profitability during the period of financial distress.

Further Butt *et al*, (2010) and Ibenta, (2005) stated that the return on assets influences the efficiency of management to use assets to generate earnings. They further state that the main purpose of any firm is to maximize profit and maintains the liquidity of the firm also is an important objective.

5.2 Conclusions

From the study on effect of management of accounts receivables on agro-firm's profitability, it was concluded that in agro firms there is no harm in selling to customers on credit, debtors are given less than 30 days to settle their debts, and also agro firms in Eldoret business centre have to follow credit policy on the payments of debts. Lastly it was concluded that debtors are given less than 60 days to settle their debts. These findings are supported by Baumol's Model which helps in determining a firm's optimum cash stability below certainty. It's far significantly used and exceptionally useful for the purpose of cash control. As in line with the model, cash and inventory control issues are one and identical. The model is basically used in inventory control and cash management. This model trades off among possibility fee or sporting cost or keeping price and the transaction price. As such company tries to decrease the sum of conserving cash and the fee of converting marketable securities to cash.

On the effect of management of accounts payable on agro-firm's profitability, it was concluded that accounts payables, arise directly from the business's operations and represent a valuable source of internal spontaneous short term financing that is unsecured and flow of cash. It was also concluded that agro firms creditors use cash on delivery method in supplying products, agro firms strictly follow the trade credit policy when making payment to suppliers, and also agro firms in Eldoret business centre takes one month to pay their suppliers, and lastly on whether it was concluded that it takes them more than 3 months to pay suppliers. This was supported by the Conservative Policy which states that the firm finances its permanent assets and additionally a part of temporary current assets with long-term financing

Further on effect of management of inventory on agro-firm's profitability in Eldoret Business Centre, it was concluded that companies investing in stock and trade credit can suffer reduced profitability. Further, larger stock lowers the risk of stock-out. Additionally it was concluded that in agro firms, managers make decisions on the type of inventory to purchase, they maintain small level of inventory in the firm and this increases our profits very fast, and lastly agro firms maintain a large number of inventories and this increases their profitability. These findings are supported by inventory theory Nahmias (2007) maintaining a low inventory cost is as important to a company as it is to achieve high service levels. The investment cost in the safety stock, along with a desire to maintain high level of service level, provides decision makers with a dilemma, which is difficult to deal with. Customer satisfaction or the ability to effectively respond to customer demand can be gauged by measuring service level (Nahmias 2007)

Lastly on the effect of management of cash on agro-firm's profitability, it was concluded that, agro firms appears to be serious on cash management of cash as compared to management of accounts payable, management of accounts receivable and inventory management, it was further concluded that poor management of Cash has a negative effect on profitability, Proper management of Cash has a positive effect on and that agro firms in Eldoret business centre set a credit policy which will help in profitability. This is supported by Miller and Orr (1966) model which ought answers to situations with unsure cash inflows and outflows. All they assumed is that the daily net cash drift is a typically dispensed random variable suggesting a well-known deviation. The liquidity hazard may be decreased by using a bigger cash balance, but it cannot be removed completely. The cash balance need to be improved to the goal level with the aid of promoting securities, when the decrease restrict is reached; and the possibility cost of preserving cash must be decreased by returning to the goal cash balance via buying securities, whilst the

upper restriction is reached. The transaction price of buying and promoting securities is constant inside the Miller-Orr model.

5.3 Recommendation of the Study

5.3.1 Recommendation with Policy and Practice

This study recommends that managers of agro firms in Eldoret town should create value for their shareholders by ensuring effective and efficient management of debtors, this ensures reduction of time between sales and receipt of payment and this will determine the capability of finance of the firm.

Secondly the study recommends that agro firms should negotiate for better terms of credit with their supplies, this elongates the accounts payable, and this ensures minimal interruption of supplies to the firm which in turn leads to smooth operation which ends up with better organizational profitability.

Thirdly it is recommended that managers of agro firms should put in place effective inventory control systems to their supply chain department, this ensures that the organizations maintains inventory levels which leads to the reduction of costs due to interruptions in the production process and loss of business due to scarcity of products.

Lastly it is recommended that managers of agro firms in Eldoret business centre should ensure effective cash management and working capital practices which leads to better cash position leading to confidence and reduces the risk of short term crisis.

5.3.2 Suggestion for Further Research

Owing to the limitations of the study it is suggested that same study be done but in other sectors to allow generalizations of the study findings. Also working capital is not only a factor that ensures profitability of agro firms, There is need for a study on the determinants of profitability in agro firms.

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APPENDIX I: QUESTIONNAIRE

Dear Respondent,

I am a student at Kisii University undertaking a Master's Program in Business Administration – finance option in the school of Business and Economics. I am conducting a study Working Capital Management as a determinant of profitability of Agro firms in Eldoret Business Centre. This study is a partial requirement for the award of Degree. The Information gathered through this questionnaire will be kept confidential and used solely for academic purpose. Your participation is entirely voluntary and the questionnaire is completely anonymous. Your contribution in facilitating this study will be highly appreciated,

Yours Faithfully,

Likalama, Alice.

SECTION A: BACKGROUND INFORMATION OF THE RESPONDENTS

1. Which Agro-firm do you work for?

.....

2. How long have you been in the profession?

0-3 years

4-6 years

7-9 years

10 and above

3. Indicate your academic qualification

O – Level Certificate Diploma Degree others specify

4 What is your area of specialization?

Veterinary Officer Sales assistant Accountant Other.....

5. What is your term of service?

Casual []

Contract []

Regular []

Other, specify []

6. What is your position in this firm?

Manager []

Accountant []

Supervisor []

Veterinary Officer []

Sales assistant []

Other, specify _____

SECTION A: WORKING CAPITAL MANAGEMENT

This section deals with information on the general information on working capital. Please indicate the level of your agreement with the following statements by ticking the most appropriate box. Where strongly agree (5) Agree (4) Undecided (3) Disagree (2) Strongly Disagree (1)

SN	Variables	SD	D	U	A	SA
		1	2	3	4	5
1	We make purchase using money from daily operations					
2	We make sales on a daily basis					
3	Inventory is maintained monthly					
4	Adequate Working Capital is good for the business					

SECTION B: MANAGEMENT OF ACCOUNTS RECEIVABLES

This section deals with information on the management of accounts receivable. Please indicate the level of your agreement with the following statements by ticking the most appropriate box.

Where strongly agree (5) Agree (4) Undecided (3) Disagree (2) Strongly Disagree (1)

SN	Variables	SD	D	U	A	SA
		1	2	3	4	5
1	Our customers are those who deal with cash and carry					
2	There is no harm in selling to customers on credit					
3	Debtors are given less than 30 days to settle their debts					
4	We have to follow credit policy on the payments of debts					
5	Debtors are given less than 60 days to settle their debts					

SECTION C. MANAGEMENT OF ACCOUNT PAYABLES

This section deals with information pertaining management of accounts payables. Please indicate the level of your agreement with the following statements by ticking the most appropriate box.

Where strongly agree (5) Agree (4) Undecided (3) Disagree (2) Strongly Disagree (1)

SN	Variables	SD	D	U	A	SA
		1	2	3	4	5
1	Our creditors use cash on delivery method in supplying products					
2	It is beneficial if we purchase our products on credit because it increases our profitability					
3	We strictly follow the trade credit policy when making payment to our suppliers					
4	It takes us one month to pay our suppliers					
	It takes us more than 3 months to pay our suppliers					
5	It takes us two months to pay our suppliers					

SECTION D. MANAGEMENT OF INVENTORY

This section deals with information pertaining management of inventory. Please indicate the level of your agreement with the following statements by ticking the most appropriate box.

Where strongly agree (5) Agree (4) Undecided (3) Disagree (2) Strongly Disagree (1)

SN	Variables	SD 1	D 2	U 3	A 4	SA 5
1	Only the manager makes decision on the type of inventory to purchase					
2	The stock we deal with is very durable					
3	We maintain small level of inventory in the firm and this increases our profits very fast					
4	We maintain medium level of inventory and this increases our profitability					
5	We maintain a large number of inventory and this increases our profitability					

SECTION E. MANAGEMENT OF CASH

This section deals with information pertaining management of cash. Please indicate the level of your agreement with the following statements by ticking the most appropriate box. Where strongly agree (5) Agree (4) Undecided (3) Disagree (2) Strongly Disagree (1)

SN	Variables	SD	D	U	A	SA
		1	2	3	4	5
1	Poor management of Cash has a negative effect on profitability					
2	Proper management of Cash has a positive effect on profitability					
3	Setting credit policy will help in profit making					
4	It takes less than a month for purchases to be converted to cash					
5	It takes less than two months for purchases to be converted to cash					

SECTION F. MANAGEMENT OF PROFITABILITY

This section deals with information pertaining management of profitability. Please indicate the level of your agreement with the following statements by ticking the most appropriate box.

Where strongly agree (5) Agree (4) Undecided (3) Disagree (2) Strongly Disagree (1)

SN	Variables	SD	D	U	A	SA
		1	2	3	4	5
1	We realize profitability when debtors settle their debts					
2	Management of inventory has helped us improve on our profitability					
3	Management of Cash help the firm to generate and increase its profits					
4	After paying all our expenses, we don't get any profits					
5	After paying all our expenses, we still have profits					

APPENDIX II: DEFINITION OF VARIABLES

Variables	Calculations	Symbols
Return on Capital Employed	Net operating profit/Capital Employed	Return on Capital Employed (ROCE)
Return On Assets	Net Income/Totals Assets	Return on Assets (ROA)
Management of Accounts Receivables	Accounts Receivables/sales x365 days	Management of Accounts Receivables (MAR)
Management of Accounts Payables	Accounts Payables/Purchases x 365 days	Management of Accounts Payables (MAP)
Management of Inventory	Inventory/cost of sales x 365 days	Management of Inventory (MINV)
Management of Cash		Management of Cash (MCASH)

Source (Author 2016)

PROPRIETOR'S NAME	NAME OF PREMISE	MARKET/TOWN	CONTACT ADDRESS	TELEPHONE	EMAIL	LICENSE NUMBER	STATUS OF	DATE OF	KEPHIS NO.	TYPE OF SEED SOLD
K.F.A	K.F.A BUILDING	ELD TOWN	Box 17, ELD	053 203 0229		AG/SED/R/14/078	SINGLE BUSINESS PERMIT	01/01/2015	6533	KENYA SEED
EMMY RONO	MEADOWS BUILDING	ELD TOWN	Box 964, KITALE	0717 545 484		SS/SED/N/14/570	SINGLE BUSINESS PERMIT	01/01/2015	2893	KENYA SEED
FRANCIS KIRAGU NDEGWA	UG FERTILIZER & SEEDS	ELD TOWN	Box 6637, ELD				SINGLE BUSINESS PERMIT	01/01/2015	2201	KENYA SEED
ZAKAYO TALLAM	KALY'S LTD	ELDO CRTIRE-ELD TOWN	Box 2602, ELD	0721 668 822/ 0734 864 747		AG/SED/R/13/177	SINGLE BUSINESS PERMIT	01/01/2015	0827	KENYA SEED
PAUL O. OKELLO	WARENG FAIRLINE ENTERPRISES	ELDORET	Box 6508, ELD	0723 455 362	warengfairline@yahoo.com		OPERATIONAL	31/03/2015	67089	HORTICULTURAL AND CEREALS
DOMINIC MWANGI KARANJA	KABUNGUT AGROVET	ELDORET	Box 1463, ELD	0722 633 875	kabungutpestcontrol@gmail.com		OPERATIONAL	26/02/2015	54865	HORTICULTURAL AND CEREALS
J. C. MIBEY	SOY KABATIK AGRI CENTRE	ELDORET	Box 2553, ELD	0720 434 652	soykabatikag@yahoo.co.uk	AG/R/05/14/56	OPERATIONAL	20/01/2015	46509	VEGETABLE SEEDS
SIDAI AFRICA LTD	SIDAI AFRICA	ELDORET	Box 64945, NBI	0703 491 296	eldoret@sidai.com	SS/SED/R/14/499	OPERATIONAL	20/01/2015	62492	HORTICULTURAL AND CEREALS
JOHN CHEMWENO	WILCHEMSONS CO. LTD	ELDORET	Box 972, ELD	0722 724 990	wilchems@gmail.com	AG/SED/R/13/197	OPERATIONAL	03/03/2015	44131	HORTICULTURAL AND CEREALS
JANE JELAGAT	TACHASIS LTD	ELDORET	Box 2182, ELD	0710 119 261		SS/SED/R/14/174	OPERATIONAL	28/12/2015	6483	HORTICULTURAL AND CEREALS
STEPHEN AYUNGO	MERRYCHEM CO LTD	ELDORET	Box 7780, ELD	0721 634 118	info@merrychemagrochem.co.ke		OPERATIONAL	05/02/2015	3135	KENYA SEED
ESTHER LELELTO	BERUR FARM SHOP	ELDORET		0720 774 005			OPERATIONAL	31/03/2015	53910	PANNER, KENYA SEED
WAMBUA KIBUBA	ELDORET VETCHIC ENTERPRISES	ELDORET	Box 9633, ELD	0721 488 502			OPERATIONAL	31/03/2015	8582	HORTICULTURAL AND CEREALS
DR. NDEGWA	SHAMBA BORA AGROVET	ELDORET	Box 994, NYAHURURU	053 203 3208		SS/SED/R/14/401	OPERATIONAL	28/01/2015	6624	HORTICULTURAL AND CEREALS
MOSES SONGOK	ELDORET AGRI STORES	ELDORET	Box 2335, ELD	0710 551 720	eldoagri@yahoo.com	AG/SED/R/13/100	OPERATIONAL	19/02/2015	44299	HORTICULTURAL AND CEREALS
DR. NJUGUNA	JOKIMA AGROVET	ELDORET	Box 2699, ELD	0722 430 480			OPERATIONAL	18/02/2015	47133	HORTICULTURAL AND CEREALS
JAMES G. NGUNG'U	SIMAT AGROVET	ELDORET	Box 8093, ELD	0715 634 015	jamesgitonga62@yahoo.com		OPERATIONAL	27/02/2015	6022	HORTICULTURAL AND CEREALS
SERAPHIN OYAMO	GREEN LEAF AGROVET	ELDORET		0735 669 640			OPERATIONAL			HORTICULTURAL AND CEREALS
FREDRICK OTIENO	DAIRY MAN VET SERVICES	ELDORET	Box 8190, ELD	0721 950 312			OPERATIONAL	31/01/2015	62786	HORTICULTURAL AND CEREALS
PATROBA RUTTO	MOSOP FARM INPUTS	ELDORET	Box 338, ELD	0731 899 989		AG/SED/R/14/108	OPERATIONAL	21/02/2015	56863	HORTICULTURAL AND CEREALS
ALOYCE OPIYO	FARMLINK ENTERPRICES	ELDORET	Box 4392, ELD	0723 241 599	farmlinkeldo@gmail.com	AG/SED/R/14/143	CURRENT	27/03/2015	5324	HORTICULTURAL AND CEREALS
DR. WILSON KIPTANUI	BAITANY AGROVET LIMITED	ELDORET	Box 9307, ELD	0722 645 771	baitany@africaonline.co.ke	AG/SED/R/14/126	CURRENT	01/01/2015	43391	HORTICULTURAL AND CEREALS
GEORGE KIBET	MASHAMBANI FARM INPUTS	ELDORET	Box 6409, ELD	0723 737 690	sigoifarm@yahoo.com		CURRENT	04/02/2015	65573	HORTICULTURAL AND CEREALS
NICHOLAS LETTING	SOLANA AGRI FARM	ELDORET	Box 1034, ELD	0710 220 068	solana.agrifarm@yahoo.com	SS/SED/R/14/533	CURRENT	31/01/2015	69626	HORTICULTURAL AND CEREALS
ANTONY KAMUNYA NDUNGU	ELDORET TOPLINE AGROVET	ELDORET	Box 2314, ELD	0722 865 441	anthonyndungu88@yahoo.com	SS/SED/R/14/082	CURRENT	27/02/2015	44869	HORTICULTURAL AND CEREALS
WARENG NEKOI FARMERS COOP SACCO LTD	KOROSIOT BUILDING	ELDORET	Box 8903, ELD	0720 545 318	warengneko@yahoo.com	AG/SED/R/14/57	CURRENT	11/02/2015	7809	HORTICULTURAL AND CEREALS
ANTONIO DAVID & BILINDA CHEPCHIRCHIR	MOIBEN CONNECTIONS	ELDORET	Box 9046, ELD	0722 396 769	info@moibenconnectionskenya.com	AG/SED/R/14/110	CURRENT	26/03/2015	57631	HORTICULTURAL AND CEREALS
PHILOMENA SERGON	BARKITES AGROVET	ELDORET	Box 1594, ELD	0721 554 558 / 0722 630 894			CURRENT	28/04/2015	65436	HORTICULTURAL AND CEREALS
JOHN KIBOR	ELDORET SUPERIOR BREEDERS	ELDORET	Box 6608, ELD	0722 736 730	kiborjohn@gmail.com	SS/SED/R/14/708	CURRENT	31/11/2015	62168	HORTICULTURAL AND CEREALS
DR. SAMSON MUTAI	BARATON VET CENTRE	ELDORET	Box 600, ELD	0722 250 363	samsonmutai@gmail.com	AG/SED/R/14/216	CURRENT	03/01/2015	56123	HORTICULTURAL AND CEREALS
IAN KEINO	SISIBO AGRO & CHEMICALS LTD	ELDORET	Box 3532, ELD	0722 652 288	sisibochem@gmail.com	AG/SED/R/14/150	CURRENT	10/01/2015	59103	HORTICULTURAL AND CEREALS
DR MWANGI M. GITONGA	LESSOS VETERINARY SUPPLIES	ELDORET	Box 1080, ELD	0733 610 951	lessos@africaonline.co.ke	SS/SED/R/14/149,150	CURRENT	19/03/2015	7174/ 46431	HORTICULTURAL AND CEREALS
BETTY	UASIN GISHU AGROVET	ELDORET	Box 6508, ELD	0724 415 297	wafulabetty@yahoo.com		CURRENT	54/02/2015	66377	HORTICULTURAL AND CEREALS
DR. BEN MUSEMBI	LITEIN VETERINARY	ELDORET	Box 6041, ELD	0721 259 058		AG/SED/R/14/294	CURRENT	31/03/2015	45210	ALL SEED VARIETIES
SETH YAKE	ZERUYA HOLDINGS LIMITED	ELDORET/PIONEER	Box 3533, ELD	0701 207 740	zeruyagro@gmail.com	72402	valid	Jan-15	SS/SED/N/14/709	MAIZE ASSORTED-HORTICULTURAL SEEDS
VICTOR RUTTO	ASI-KENYA	ELDORET/PIONEER		0735 518 341	info.asi.co.ke					
DANIEL SERONEY	SEMBERIA AGROVET	ELD TOWN		0722 752 606						
JOSEPHINE BOSS	CHAMTANY AGROVET	ELD TOWN	Box 2904, ELD	0722 600 900		7736		28/03/2014	SS/SED/R/14/230	BEANS, MAIZE, VEGETABLE SEED
SAMUEL MWANGI	FARMCARE AGROVET	ELD TOWN	Box 4357, ELD	0712 626 392		7461		03/03/2014	SS/SED/N/14/604	MAIZE, VEGETABLE SEED
SARAH BOIT	SAMSARALINE AGROVET	ELD TOWN	Box 2431, ELD	0720 491 846		44432		14/02/2014	SS/SED/R/14/190	GRASS, MAIZE, VEGETABLE SEED
SAMBAI KITUR	BANDAPTAI AGOCHEM	ELD TOWN	Box 1152, ELD	0701 872 058		7500		20/02/2014	AG/SED/R/14/077	GRASS, BEANS, MAIZE, VEGETABLE SEED
ISAYA KIPLAGAT	AUTOHARD AGROVET	ELD TOWN	Box 131, ELD			7666		18/02/2014	AG/SED/R/14/144	MAIZE, GRASS, WHEAT, ANIMAL FEEDS
	RIMOY AGROVET	ELD TOWN								
KENNETH K. LAGAT	TUIYO FARM INPUTS	ELD TOWN	Box 813, ELD			62837		25/05/2014	AG/SED/R/14/135	MAIZE, ANIMAL FEEDS
PHILIP W. C. KIRUI	NEW 64 AGROCHEMICALS	ELD TOWN	Box 3923, ELD			7725		20/01/2014	AG/SED/R/14/076	MAIZE, WHEAT, VEGETABLE SEED
STEPHEN KEMBOI	MARABA INVESTMENTS	ELD TOWN				7762/ 7671		21/03/2014	AG/SED/R/12/131	MAIZE, WHEAT, GRASS, VEGETABLE SEED
JOEL K. KIPSANG	NYARU AGRO SUPPLIES	ELD TOWN	Box 6704, ELD	0724 392 642		54441/50498		15/01/2014	SS/SED/R/14/089	BEANS, MAIZE, VEGETABLE SEED
PAUL OKELLO	WARENG AGROVET	ELD TOWN		0723 455 362		67089				VEGETABLE SEEDS
KIM KOLLUM	ASISCO PHARMACEUTICALS	ELD TOWN	Box 45681, ELD	0712 162 192				20/01/2014	AG/SED/R/13/218	MAIZE, VEGETABLE SEED
	SIRGOI FARM INPUTS	ELD TOWN							AG/R/05/13/122	MAIZE, ANIMAL FEEDS
DAVID WAIHAKA KUGURU	METKEI AGROVET	ELD TOWN	Box 4357, ELD			48196		20/03/2013	SS/SED/N/13/269	MAIZE, VEGETABLE SEED

COUNTY DIRECTOR OF AGRICULTURE
 UASIN-GISHU
 P. O. Box 95,
 ELDORET-30100

[Handwritten Signature]

APPENDIX IV: RESEARCH PERMIT



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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P.O. Box 30623-00100
NAIROBI-KENYA

Ref No: **NACOSTI/P/16/43751/12734**

Date:

1st August, 2016

Alice Akello Likalama
Kisii University
P.O. Box 402-40800
KISII.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “*Working Capital Management as a determinant of profitability on Agro- Firms in Eldoret Business Centre,*” I am pleased to inform you that you have been authorized to undertake research in **Uasin Gishu County** for the period ending **29th July, 2017.**

You are advised to report to **the County Commissioner and the County Director of Education, Uasin Gishu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Uasin Gishu County.

The County Director of Education
Uasin Gishu County.

