

**EFFECTS OF WORKING CAPITAL MANAGEMENT PRACTICES ON FINANCIAL
PERFORMANCE OF FOOD AND BEVERAGE MANUFACTURING COMPANIES IN
KENYA**

BY

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MASTER OF SCIENCE IN COMMERCE (FINANCE AND ACCOUNTING)

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE IN
COMMERCE FINANCE & ACCOUNTING IN THE SCHOOL OF BUSINESS AT KCA
UNIVERSITY**

OCTOBER 2019

DECLARATION

This dissertation is my original work and has not been submitted for degree in any other university. I also declare that this project does not contains material published or written by other persons except where author is accordingly acknowledged, and due reference is made.

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Declaration by University Supervisor

This research project has been submitted for examination with my endorsement as university supervisor.

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ABSTRACT

In the recent past, the Food and Beverages manufacturing industry has been facing challenges to thrive and this has resulted in some of the companies in the sector to close and others relocate to other countries. This follows the unfavorable working environment in the country including individual firms challenge. The challenges force the organizations to maintain either inadequate or excess working capital levels. These working capital levels maintained are not desirables in the current competitive market. Working capital management practices involves managing the firm's inventory, receivables and payables in order to achieve a balance between risk and returns and thereby contribute positively to the creation of a firm's value. Excessive investment in inventory and receivables reduces the profits, whereas too little investment increases the risk of not being able to meet commitments as and when they become due. This study aimed at examining the effects of working capital management practices on financial performance of food and beverage manufacturing companies in Kenya. The dependent variable was financial performance and the independent variables were inventory management practices, cash management practices, accounts receivable practices and accounts payable practices. A descriptive research design was used in the study. The target population was 181 food and beverage manufacturers in Kenya registered under KAM. The sample for the study was all the 65 food and beverage manufacturing companies in Nairobi county which are spread across various sub-sectors of food and beverage. The study used primary data. Questionnaires were administered as the preferred primary data collection instrument. Data analysis was done using Stata software. Diagnostic tests on normality, randomness of residuals, multicollinearity and homoscedasticity of the residuals was carried out to ensure goodness of fit. Mean, Standard deviation, and Regression analysis were calculated. The analyzed information was presented in tables, charts and figures for interpretation to establish the relationship between financial performance and working capital management practices for food and beverage manufacturing firms. The study found that in relation to inventory management practices that the firm periodically forecasts inventory requirements. The study further established that with regard to cash management, the company updates prepayment schedule. In relation to accounts receivable, credit limit is set for each customer. Additionally, regarding accounts payable practices the firm has set up payment policy. At 5% level of significance and 95% level of confidence, inventory management practices and accounts receivable practices, were significant on financial performance of food and beverages companies in Kenya. Cash management practices and accounts payable practices are not statistically significant in explaining financial performance. The study concluded that the company periodically forecast inventory requirements, credit limit is set for each customer and that the firm has set up payment policy. The study recommends the use of various inventory management practices and accounts receivable practices in management working capital amongst the food and beverage companies in Kenya.

Keywords: KAM, Working capital, Regression, food and beverage manufacturing, Stata

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DEDICATION

I dedicate this research project to my wife and children who have offered me full support in my academics.

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OPERATIONAL DEFINITION OF TERMS

Working Capital	Refers current assets minus current liabilities. It represents the ability of an organization to pay its current liabilities using its current assets.
Working Capital Management	Refers to a business strategy that ensures that a business monitors its current assets and current liabilities so as to meet short term obligations
Working capital management practices	It is different methods/plans/policies used to manage inventory, receivables, cash and payables.
Financial performance	This is a subjective measure of how well an organization utilizes its assets to generate revenue.
Cash Management Practices	Refers to the effective systems/procedures of managing cash for the best returns to the company
Accounts Payables Practices	Refers to the effective systems/procedures of managing payables for the best returns to the company
Accounts Receivables Practices	Refers to the effective systems/procedures of managing receivables for the best returns to the company
Inventory Management Practices	Refers to the effective systems/procedures of managing stocks for the best returns to the company

ACRONYMS AND ABBREVIATIONS

CMP-Cash Cash Management Practices

IMP-Inventory Management Practices

KAM-Kenya Association of Manufacturers

OLS-Ordinary Least Square Method

APP-Accounts Payables Practices

ARP- Accounts Receivables Practices

ROI-Return on investment

ROA-Return on asset

EBIT-Earnings before interest and tax

NP-Net profit

CHAPTER ONE

1.1 Background of the Study

The liquidity of the firm is critical for every business, medium, big, or small. When a business fails to properly manage their liquidity, cash shortages will be experienced, and it faces challenges to cater for its obligations (Hidaya, 2014). Inadequate working capital has been credited generally as a critical cause of most business failure in both developing and developed countries (Charitou, Elfani & Lois, 2010). Management working capital is critical because of its impact on the profitability and risk of the firm and as a consequence, firm's value. According to Nyamao (2012), profitability is always the return rate on the investment of the firm and is the measure used in research for assessing financial performance.

Many firms will have their main objective as to maximize profits. Firms that are profitable constantly will more probably survive compared to others which are either loss-making or inconsistent (Omino, 2014). On the contrary, the liquidity of any organization is critical, as it will enable the firm to smoothly carry out its activities. Financial viability is a crucial part of organizations survival and success. All organizations will always strive to ensure that they achieve their financial objective through different measures and effort (Hidaya, 2014). The financial performance of the organization has been analyzed and linked by different financial parameters (Omino, 2014).

The operating cycle in working capital management is the duration between the institutions inventories purchases, wages and other expenditures outflows, and the cash and other inflows from the sales of its services (Shin & Soenen, 2013). Operating cycle is comprised of three items, these are the payable days, receivable collection days and inventory turnover days,

the cycle is important because it determines the amount of cash flows an organization needs, if the duration for accounts receivables and inventories conversion lengthens, or the time for payables conversion shortens, the operating cycle lengthens thus the investments in short-term financial management increases, if the operating cycle lengthens, it requires larger investments in working capital, however if the cycle shortens, then it requires less working capital. Short-term financial management is critical for success of any organization; no institution can achieve its objectives if it's unable to meet its daily obligations. All institutions should have robust practices for managing each component of working capital (Eljelly, 2014).

1.1.1 Working Capital Management Practices

Management of working capital is vital due to various reasons. For one thing, in a normal manufacturing business, the current assets equate to over a half of the firms' total assets (Reheman & Nasr, 2014). Eiteman, Stonehill, Moffett and Pandey (2008) emphasize that the terms of credit offered to the channel of distribution by manufacturers are of such scale as to constitute purchase of the retailer, such purchase being necessary to build a working distribution system concerning the manufacturer and the final customer". In a manufacturing firm viewpoint, working capital cycle is the period that raw materials are held in stock less average time of credit given by vendors and the period taken in production of the goods, the period the stock share held in the finished goods warehouse, and the time taken by debtors to pay for the products (Reheman & Nasr, 2014). For a manufacturing concern, the working capital cycle is longer than that of marketed business. Thus, a manufacturing business requires more finances to fund working capital.

Working capital management practices involves managing the firm's inventory, cash, receivables and payables in order to achieve a balance between risk and returns and thereby

contribute positively to the creation of a firm's value. Excessive investment in inventory and receivables reduces the profits, whereas too little investment increases the risk of not being able to meet commitments as and when they become due (Harris, 2015). The working capital includes all the items shown on a company's balance sheet as short term or current assets, while net working capital excludes current liabilities. These measures are considered useful tools in accessing the availability of funds to meet current operations of companies. Therefore, the importance of maintaining an appropriate level of working capital and its contribution to business survival is a concept that should be understood by every company.

The management of working capital is understood as a major prominent financial function in profitability. It does represent the invested amount of money by a company in meeting its daily operations (Sarvapriya, 2012). The working capital is normally the difference between different current assets (bank balances, trade debtors, inventories) and current liabilities (trade creditors, accrued expenses, other repayable, shorter payables,) (Charitou, Elfani & Lois, 2010). As a result, working capital management efficiency is majorly evaluated through the management of inventory, payables management, receivables management, and quick and current ratio.

The working capital management is vital in the decision-making of finances of an organization since it is normally an art of asset investment and it affects the liquidity and profitability of the company. Appropriate management of working capital is as a result critical in case the firms want to achieve their objectives of increasing their profitability and creating value for the shareholders (Sarvapriya, 2012). It ensures the efficient utilization as it is relating to the management of working capital, means that executives should always find efficient and effective ways of dealing with the available cash for everyday operations so that it can achieve their

optimum goals (Karadagli, 2012). Good working capital management will increase the cash flows leading to the reduced need on the external financing and default probability for a company is reduced.

Management of working capital is critical to business financial stability. The invested amounts in the working capital are at times high compared to the presently employed assets and thus critical that such amounts are used effective and efficient ways (Omino, 2014). An effective and well-designed working capital management has an important contribution to liquidity and profitability position of companies (Karadagli, 2012). Therefore, the current concern existing is anchored greatly to the continued organization's solvency showing how important working capital with regards to creating shareholders wealth (Charitou, Elfani & Lois, 2010). The management of working capitals needs control and planning current liabilities and current assets in such a way that removes the inherent threat of not meeting the immediate obligations and evading the extreme investment in such assets.

The working capital components are made up of the Accounts receivables management, cash management, and accounts payables and inventory management. In the working capitals components management, the main objective is managing all these for the purpose of achieving a balance between risks and profitability contributing positively to the value of the firm (Omino, 2014). A company investing heavily in working capitals (account receivables and inventory) can realize sales growth but can suffer the reduction in profitability as a lot of cash is tied into its working capitals (Sarvapriya, 2012). As the firms are investing more and more in current assets, return and risk will be reduced. However, reduced current asset investments have a higher risk of solvency and higher returns too (Charitou, Elfani & Lois, 2010). It is therefore critical for a company determining correctly its optimal investments in working capital.

Cash inflows are critical in any organization, and growth is sustained by the ability in cashing in organizational short-term operating assets, for a manager tasked with planning of cash flows, the goal should be that all priority outflows be met fully out of operating cash flows, if this rule is violated then the organization will eventually get into traps of debts (Van Horne & Wachowicz, 2014). In not for profit, there should be tradeoffs between short-term financial management, customer management, costs and risk associated with all these aspects of management. To optimize the overall short-term financial management performance of the organization, we need to recognize these tradeoffs and have continuous process improvement in place.

In Not -for -profit organizations, short- term financial management poses several concerns namely, procedures for their funding, liquidity profiles, sustainability of their projects, and growth of these funds received from donors and the most important aspect the control environment (Van Horne & Wachowicz, 2014). A critical goal of short-term financial management in not for profit organizations is to ensure smooth operating cycle of its operations, it also ensures there is positive tradeoff in having sufficient cash flows for operations and ensuring that the organization is liquid, proper cash flows management comes in hand for the long- term survival of any firm, no organization is able to meet its day- to- day obligations effectively if the management of working capital is not good (Shin & Soenen, 2013).

1.1.2 Financial Performance

The subject of financial performance has received considerable attention from scholars in the various sectors of business and strategic management. Indeed, the financial performance is the primary concern of business practitioners because it has implications to organization's sustainability. Financial performance of a firm is a subjective measure of how well a firm can

use assets from its primary mode of business to generate revenue. High financial performance suggests effective and efficient management in making use of company's resources (Naser and Mokhtar, 2014). The various measures of financial performance such as return on sales reveals how much a company earns in relation to its sales.

The return on assets determines the firm's ability to make use of its assets while return on equity reveals what return investors take for their investments (Tangen, 2013). Liquidity is an important measure of financial position of a company. It estimates the ability of the firm to meet financial obligations as they come. Liquidity can be analyzed both structurally and operationally. Solvency, which measures the amount of borrowed capital used by the business relative the amount of owner 's equity capital invested in the business also provide an indication of the firms' ability to withstand risks (Harrington and Wilson, 2013).

Comprehensive planning recognizes the company's long-term means of utilizing current resources to make the company more competitive (Mochklas & Teguh, 2018). Financial performance is the capability of a company to make profit or revenue. Financial performance is the company's ability to control and manage its resources (IAI, 2016) Financial performance is the organization's financial state over a specific period. It includes the collection and use of funds measured by several indicators of capital adequacy ratio, liquidity, leverage, solvency, and profitability. The financial performance can be viewed from the financial statements which include statement of financial position, statement of financial performance, cash flow statements and statement of changes in capital. There are several ratios used to measure the company's financial performance, among others; liquidity ratio, profitability ratio, solvency ratio, efficiency ratio, leverage ratio. Examples of profitability ratios include ROE, ROA, EBIT and EBITDA (Didin 2017).

The financial performance evaluation is designed to provide answers to a broad range of important questions, some of which include whether the company has enough cash to meet all its obligations (Mochklas & Teguh, 2018); is it generating sufficient volume of sales to justify recent investment; does the company collect outstanding accounts from customers without creating burden on its cash flow; does the company make timely payments to suppliers to take advantage of discounts; does the company utilize the inventory in an efficient manner; does the company have sufficient working capital; does the company maintain an adequate profit margin; and does the company produce sufficient return on investment? An effective financial performance evaluation system should be able to attain the goals of promoting goal congruence and coordination, communicating expectations, motivating, providing feedback and benchmarking (Horgren, Harrison & Oliver, 2009).

1.1.3 Working Capital Management and Financial Performance

The working capital management is critical as it influences the organization's financial performance and in the presence of the components of working capitals, there will be adequate working capital. The food and beverage industry is critical to the Kenyans economy, but a good number of the companies have revealed difficulties in the performance operations, which leads to the slow growth in the profitability and some struggle to survive as a result of the weak practices of financial management (Omino, 2014). The company has an obligation of ensuring that there is always a balance between profitability and working capital maintenance because the optimal working capital normally guarantees short-run costs alongside the creation of the value of the firm and getting such optimally the company need to be profitable (Charitou, Elfani & Lois, 2010). Most companies are known to keep their working capital ratios high in order to increase the circulation of cash to maximize profits. In the food and beverage industry, working capital

management is critical as it is made up of the majority of the total assets of the companies (Karadagli, 2012).

Working capital management practices have been largely linked to the financial performance of both SMEs and large firms. A good number of food and beverage companies struggle, and some key players may even be forced to shift operations to other nations. Some even shut down completely citing high costs of operations as the major of negative financial situation (Sarbpriya, 2012). The financial performance is business' level of performance over a period of time and such as expressed in terms of overall losses and profits at that time. Even though liquidity will safeguard the company against challenges like stock outs, it can adversely affect its profitability since a lot of money is always tied in inventory, accounts receivables and cash at an expense to invest in the short-term financial instruments. It is thus important to always strike a tradeoff between profitability and liquidity (Hidaya, 2014). Some investment decisions, which are aimed at profitability maximization, always have inverse relations with the liquidity of the firm. On the contrary, greater liquidity focus will undermine profitability. A company may experience growth in sales because of its effective credit policy. However, many investigators have revealed that the longer the cycle of cash conversion, the lower will be profitability (Karadagli, 2012).

Financing operating assets involves decisions on tradeoffs between risk and liquidity. The larger the size of liquid assets, the less likelihood of running out of cash, effective management of various components of operating assets, effective credit and collection procedures and inventory control have a bearing on the liquidity of an institution, all institutions require operating capital, only differing in composition of the components and the controls and policies implemented. There is no universally accepted strategy for financing operating capital; however,

there are principles that address short term financing policies (Smith, 2014). Operating efficiencies leads to optimal utilization of organizations resources. Written policies relating to working capital management components improve efficiency, proper and up to date recording of the working capital components requires adequate and competent staff who can prepare reports to management for planning and decision making, preparation of all functional and master budgets enables an organization to chart its way forward and also to identify areas that need attention in advance (Deloof, 2013).

Aminu (2012) states that working capital management practice is an essential tool in the success story of any firm in terms of profitability. A good or positive working capital enables a firm to access finance from short-term creditors and even long-term creditors. In the long-run, creditors seek firms with a positive working capital since it serves as an assurance of loan repayment. The issue of a positive working capital calls for working capital management practice which, according to Pandey (2014), is the administration of all components of working capital-cash, marketable securities, debtors (receivables) and stock (inventories) and creditors (payables). Further, Pandey (2014) states that the financial manager must determine levels and composition of current assets by determining the right source to finance current assets and that current liabilities are paid in time.

Smith and Sell (2013) contends that the goal of working capital management practice is to ensure that the firm is able to continue its operation and that it has sufficient cash flows to satisfy both maturing short-term debt and upcoming operational expenses. This will obviously have significant effect on the firm's financial performance. For small and growing businesses, an efficient working capital management is a vital component of success and survival in terms of both profitability and liquidity. Ho worth and West head (2013) further suggest that the small

firms need to focus on some areas of working capital management where they can expect to improve marginal returns.

Ideally, therefore, they need to adopt formal working capital management practices in order to reduce the probability of business closure, as well as to enhance business. Performance. Grablowsky (2014) portrays a significant relationship between various success measures and the employment of formal working capital policies and procedures. Managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those who are capital constrained and more reliant on short-term sources of finance.

Working capital management practices ensure sufficient cash flow to meet short-term debts. Previous studies on working capital management and firms' performances have reported linear relationship between working capital approaches and firms' profitability (Deloof, 2013). The findings of these studies indicate that firms' working capital management approaches have significant relation to net income. Empirical evidence has indicated mixed results on the risk/return tradeoff among working capital approaches. Afza and Nazir (2014) studied the traditional relationship between management of working capital approaches and a firm's profitability and their result contradicted those of Deloof (2013), and Eljelly (2014) as they produced a negative relationship between aggressive working capital policies and profitability

1.1.4 Food and Beverage Manufacturing Companies in Kenya

Vision 2030, launched in 2008, focuses on a long-term development strategy that is aimed at transforming the country to become a middle-income nation by the year 2030. The strategy has been developed on three main pillars namely, Political, Social and Economic. Our area of interest is in the Economic strategy where the Food and Beverage sector falls under manufacturing companies. This sector is expected to generate wealth, create jobs, and attract

foreign investors so as to support socio-economic development. The development manufacturing and industrial zones across the country as well as SME industrial park will greatly support the growth of the manufacturing sector to meet the objectives of Vision, 2030. The Manufacturing sector contributed about ten percent to the nation's gross domestic product in the last seven years (KAM, 2019). However, this contribution declined to about 8.4% by the end of 2017. With proper strategies in place, the manufacturing sector is expected to increase its contribution to the national GDP to about 15% by the year 2022.

More than 40% of the manufacturing companies in Kenya are members of the Kenya Associations of Manufacturers (KAM). The food and beverage companies are spread across eight sub-sectors which include: Tobacco, chocolate, cocoa and sugar confectionery, Meat slaughtering and preservation, vegetable oils, alcohol and spirits, Dairy product producers, water, juices soft drinks and bakers and millers ((KAM), 2019). The food and beverage sector are the largest sector under Kenya Association of Manufacturers comprising of 181 members across the country. This number makes 24 percent of the total KAM membership (KAM, 2018). Geographically, the 181 manufacturers of food and beverage are spread across all major towns in Kenya. According to (Enos, 2013), the geographical location is usually influenced by ease of doing business, standard road network, political stability and availability of amenities. Food and beverage exports for household usage accounted for 45.2 per cent of the total exports in 2016 and the rate increased to 48 per cent in year 2017.

1.2 Statement of the Problem

Different Organizations use different practices in managing working capital. Some organization use specific practices in managing inventory, cash, receivables and payables while other companies use a combination of various practices to manage the working capital. Working

capital management does not get the required attention as it involves short term financing and investing. (AL-Shubiri, 2011).Recent changes in Value Added Tax refund formula and introduction of Withholding Value Added Tax have directly impacted the tax refunds received manufacturers who export part of their products((KAM), 2019). Increased cases of delay in payments by national government and county governments which is a key gate away for manufactured goods has affected the effective circulation of money in the local economy which has added strain to already suffering manufacturers due to local and other global market factors((KAM), 2019).

Working capital is perceived as one of the many causes of failures of companies in the food and beverage industry. Some local studies have examined the financial performance and working capital, but the studies were not conclusive. It is therefore crucial to expand on the following available studies. Mutugi (2010) carried out a study on the link between financial performance and working capital management of the oil companies in Kenya from his analysis of correlation, the study concluded that there was a policy of aggressive working capital in the country's oil sector. On the contrary, Mathuva (2010) finds evidence that contradicted such results. He claimed that firms increasing their levels of inventory to decrease the possible production stoppages cost and no access to raw materials possibility. He clearly states that higher levels of inventory reduce the cost to supply products and even protects against the fluctuations of price caused by factors of changing macroeconomics.

Numerous researches have been conducted to analyze how the financial performance of an organizations are affected with regards to the capital structure, ownership structure and working capital management. Also, Hidayat (2014) conducted a study on the link between the value of firms listed on NSE and working capital management. The study concluded that there

exists a statistical link between the value of firms that are quoted on the NSE and efficient working capital management. Hidaya (2014) said that managers in the hospitality industry monitor the finance dimensions of performance and competitiveness with little attention paid to the measures of the non-finance. It is evident that there are minimal studies carried out on the management of the working capital with more focus being on the food and beverages industry in Kenya. Food and beverage manufacturers face unique challenges that may not apply to other sectors such as perishability of their products which require high level monitoring. Such is the reason the study seeks to find out the recent issues affecting the working capital and financial performance in the companies in food and beverage manufacturing industries in Kenya. The study will include new variables and analyze the way working capital link with financial performance is different across different companies in the food and beverage manufacturing industry.

1.3 Study Objectives

The study examined how working capital management practices affects the financial performance of the food and beverages manufacturing companies in Kenya.

The specific objectives of the study included:

- i. To determine the relationship between inventory management practice and the financial performance of the food and beverage firms in Kenya.
- ii. To establish the effects cash management practice on the financial performance of food and beverage firms in Kenya.
- iii. To determine the influence of accounts receivable management practice on the financial performance of food and beverage firms in Kenya.

- iv. To establish the relationship between accounts payable management practice and the financial performance of food and beverage firms in Kenya.

1.4 Research Questions

- i. What is the relationship between inventory management practice and firm's financial performance level?
- ii. What is the effect of cash management practice on firm's financial performance?
- iii. What is the effect of accounts receivables management practice in firm's financial performance?
- iv. What is the relationship between accounts payables management practice and firm's financial performance?

1.5 Significance of the Study

The study findings may greatly benefit the potential investors who want to venture into food and beverage industry in Kenya; this document shall be a great guide to them as they adopt the right working capital policy for other companies. Company management can also adopt the results to influence firm performance. Few studies have been done on food and beverages. Therefore, the study findings can be used by scholars in identifying other working capital areas, which required further research with the aim of enhancing the company's profitability as return on total assets measures. The financial institution may use the findings to advance credit to the firms or business clients (Osundina, 2014).

1.6 Scope of the Study

The study focused on majorly four key working capital management practices; that is, inventory management methodology, cash management practices, accounts receivable management (credit

terms) and accounts payables management. The study was further constrained to food and beverage firms in Kenya specifically KAM members, and covered a period of 5 years (2014-2018). This period represented the recent five years with complete data including audited financial records. The quantitative study was carried out for a period of 3 months among the selected companies in the industry.

CHAPTER TWO

2.1 Introduction

The chapter involves the review of literature on how various practices of working capital management relate to financial performance. Various sections covered are theoretical review, empirical review, research gap, conceptual framework and operationalization of variables

2.2 Theoretical Review

2.2.1 *Liquidity preference theory*

The theory was developed by JM. Keynes(1936)which described the three motives of determining the demand for liquidity. The motives are transaction motive, precautionary motive and speculative motive. Transaction motive relates to cash requirement to meet day to day expenditure needs. Precautionary motive is the preference of organizations to maintain additional liquidity to cater for unexpected needs. Speculative motive is based on fear of the investor in missing out on future investment opportunities, hence keeping additional liquidity (Keynes 1936).

In working capital management practices, the theory is backed up by Liquidity- Profitability Trade-off Model which focuses on maximizations of profits by managing the current liabilities and assets (Aminu, 2012). The model is vital in decision-making processes regarding the management of working CapitalLand it entails coming up with plans to seek a balance between the always conflicting profitability and liquidity objectives. When an organization is less liquid, it is likely to make more profit compared to when it is more liquid.

This model is centered on risk and return, where a business that takes more risk tends to get high returns compared to one that takes fewer risks. It is the manner in which a business

manages its liquidity affects its profitability. This position has been reinforced by Bhunia et al., (2011) who claimed that in the event an organization is in full control of the profitability tradeoff and liquidity, it is better placed to meet its working capital optimality. When liquidity is low, profits and risks are likely to be high compared to when liquidity is high.

2.2.2. Agency Theory

The agency theory by Jansen & Mecking (1986) explains the relationship between the agent and the principle. An agency relationship is one that is under contract where at least one person, the principles, engages another individual, agent to carry out a defined task on their behalf. The theory states that in the past; theorists have been focusing on the managerial incentive issues that are caused by managerial decision-making and separation of organization ownership. In the company context, one of the leading issues is the asymmetry of information between shareholders and managers. In such master-servant relationships, the managers who happen to be the insiders, are advantaged in relation to the information. Consequently, the company's owner faces moral dilemmas following the challenge of accurately evaluating and determining the value of the management decisions.

The day to day management of the organization has the most relevant information on the management of working capital aspects while the shareholder, on the other hand, depends on the information provided on the annual financial statement either semi-annually or annually which they are expected to understand in a very short time. Such information asymmetry results in agency issues in which the internal management is fully equipped with the key information on the working capital management of the organization, while the shareholders are not. In some cases, the management may end up taking advantage of such information. The agency theory relevance to working capital management is in relation to the finance director and other senior

finance persons, who serve as agents of the organization owner and makes the important decisions on the short-term assets and liabilities of the organization. The finance director is in charge of decisions related to payables, receivables, stock/inventories, and liabilities of the organization.

2.2.3 Operating cycle theory

The theory was developed by Park and Gladson, (1963). The theory held that money is first held in raw materials, followed by labor and other conversion costs then selling and distribution costs. It states that money required in the entire operation cycle. This results to the need that all components of working capital need to be factored when determine working capital requirements. This proposition is supported by Cash Conversion Cycle model. The cycle of cash conversion is centered on how the working capital components relates with the cash flow within an organization and is based on in determining the amount of cash required for any level of sales (Gitman 2005). The model was developed being part of the operating cycle theory that is made of the sum of debtors' conversion cycle period with inventory period and deducting creditor's conversion cycle period. Cash conversion cycle looks at the period between production materials acquisition and the inflows accrued from the sale of finished products. This represents the number of operation days that need to be financed.

The theory is inactive way of measuring the management of ongoing liquidity by putting together the income statement data and the balance sheet to come up with a time dimension measure (Jose and Lancaster, 2006). It is applied as an inclusive measure for working capital since it indicates the delay in time between the sales of finished goods sales and the expenditure on raw materials purchase. Daily management of short-term liabilities and assets play a vital role in the success of a company. A company that has healthy bottom lines and increasing long

term prospects, have to have good liquidity management for them to remain solvent (Jose and Lancaster, 2006).

As per Richards and Laughlin (2010); traditional ratios like Quick ratio, cash ratio, and current ratios, cannot offer precise information on working capital and therefore the need to use working capital management ongoing liquidity measures based on production, acquisition, payment, sales, and collection process over time.

The ongoing liquidity of an organization acts as a function of its conversion of cash and this means that evaluation appropriateness is by cash conversion cycle and not liquidity measures. The longer the cash conversion cycle, the higher the resources required by the organization. Consequently, the lesser the cycle, the fewer the working capital investment. However, a longer cash conversion cycle is likely to upsurge revenue in sales that could in turn lead to a higher profitability. On the other hand, a longer cash conversion cycle can also result in higher investment and is likely to rise faster compared to the higher profitability benefits.

2.3 Empirical Review

2.3.1 Inventory Management practices and Financial Performance

Lwiki et al (2013) examined sugar manufacturing companies in Kenya with regards to the inventory management practice impact on the financial performance targeting sugar manufacturers in Kenya. They achieved this by examining various variables which were the level at which lean inventory system, strategic supplier partnership and technology are applied to manage inventory in the selected organizations. The study sample was eight sugar manufacturing companies and the period of study was between 2002 and 2007. The questionnaires used were structured and semi-structured to collect primary data and they were administered to key informants in the firms. Annual financial performance statements were based on obtaining

secondary data and were found in the yearbook sugar statistics. The researchers made use of descriptive statistics in testing the effect of inventory management practices. The research used correlation analysis in determining the magnitude and nature of the relationship among dependent and independent variables. The study results showed a positive correlation between Return on Sales and Return on Equity and inventory management.

In two studies by Ajilore (2009) and Deloof (2003), the findings demonstrated a negative correlation between inventory conversation period and liquidity. The results meant that the longer the time inventory is tied in the organization, the less the working capital available and therefore, the lower the profits levels. More ever, having inventories for a longer period in the organization is likely to result in increased transaction costs. This has a negative impact on the organization's liquidity. Agency issues are likely to come up when inventories are held for too long because the organization will not be maximizing the returns on the investment by shareholders.

Lieberman and Helper (2009) examined the determinants of inventory policies targeting automotive companies in the United States. The findings were that both managerial and technological factors had a significant impact in determining the inventories levels. Technologies factors such as processing times and longer set-up times were seen to increase the inventories levels. The inventory average price per piece decreased the level of inventories. The results also showed that managerial factors such as more problem-solving training and employee training had a reducing effect on the levels of inventory. As per Arthur Mulumba(2016) who used various methods of inventory management including Just in time, vendor managed inventory, stock forecasting and net transactions; all these methods concluded that they had a significant effect on financial performance of agrochemical manufacturers in Kenya.

Cannon (2013) introduces contradictory perspective that inventory performance should not be measured as a robust indicator of overall performance. Cannon (2013) indicates that when the effects of time are considered, turnover improvement on average has a slightly negative effect on ROA. Additionally, turnover improvement exhibits a prominent random effect. Consistent with Cannon (2013), another Koliass et al. (2014) present that inventory turnover ratio (as a measurement of inventory management), is negatively correlated with gross margin. Moreover, there exists a negative relationship between gross margin and inventory turnover. This implies that retailers' trade off gross margin for inventory turns to achieve similar return on inventory investment since, if inventory turnover ratio is lower than targeted given the level of gross margin, then management should be alarmed with this inefficiency.

Lazaridis and Tryfonidis (2006) in their study found the negative relationship between liquidity and inventory period was not statistically significant. Raheman and Nasar (2007) determined that inventory turnover coefficient in days is highly significant and negative. They concluded that when inventory takes more time to sell, then it will adversely impact the performance of an organization. Deloof (2003) stated that the negative relation between liquidity and inventory is likely to be as a result of declining sales, leading to more inventories and lower profits. From the foregoing literature review; there exists a relationship between inventory management and financial performance of an organization.

2.3.2. Cash Management Practices and Financial Performance

Mwangi et al. (2014) analyzed the management of working capital effect on the performance of non-financial firms listed in the Nairobi stock market. The results showed that conservative and aggressive working capital management practices had a positive correlation with organization performance. It recommended managers of organizations to embrace such practices in the

operations of their businesses. From the past reviews, the collected evidence shows a conflicting position regarding the relationship between the performance of organizations and management of working capital practices. The study was conducted to determine the influence working capital management has on the financial performance targeting deposit-taking institutions. The capital management practices components included account receivables, cash management, inventories management, and accounts payables management.

Agha (2014) researched on the effect of working capital management on profitability. This research was based on secondary data collected from Glaxo Smith Kline pharmaceutical company case study between 1996 and 2011. The results indicated that there was a positive effect of working capital on profitability. However, current ratios do not relate with performance and hence, the study recommended that the turnovers of creditors and stock, together with Debtors ratios, have to be minimal in order to realize the highest possible profits. This demands for optimal working capital management.

Raheman et al. (2010) conducted a study that included working capital management influence on corporate performance of Pakistan's manufacturing sector. The research made use of a balanced panel data involving two hundred and four firms quoted in the Karachi stock market between the years 1998 and 2007. The findings were that growth of sales, leverage, net trade cycles, and cash conversion, together with stock turnover, positively affected the performance of organizations and such organizations faced collection policies challenges.

Nyabwanga (2011) conducted a correlational study on the effect that working capital has on a financial performance involving Small Scale Enterprises located in Kisii South District in Kenya. The study findings indicated that; practices related to cash management were low among Small Scale Enterprises because the majority were not using capital management routines that

were formal resulting in low average financial performance. The study also showed that the financial performance of such firms related positively with the efficiency of receivables management (ERM), the efficiency of cash management (ECM) and efficiency in inventory management (EIM) (Nyabwanga, 2011).

Lazaridis and Tryfonidis (2006) conducted a study on the relationship between corporate profitability and working capital management among companies listed in the Athens Stock Exchange. The sample of the study were 131 listed companies and the study was carried out between the years 2001 and 2004. Regression analysis was used to establish the relationship and the findings proved that there existed a statistical significance between profitability in terms of cash conversion cycle and the gross operating profit . The study concluded that managers need to create value for shareholders through correct handling of the cash conversion cycle as well as maintaining each component at their optimum levels. They recommended for continuous monitoring in order to maintain the desired optimum levels of different working capital components like inventory, payables and cash receivables to make sure that the organization attains the required profitability index.

Afza and Nazir (2009) examined the traditional relationship between policies on management of working capital and the profitability of firms. The research sample was 204 non-financial organizations in operation between 1998 and 2005 and quoted on the Karachi Stock Exchange. The findings showed significant differences among their financing policies and working capital requirements across different sectors. In addition, the results showed a negative correlation between the organization's profitability and aggressiveness levels of financing policies and working capital investment. They recommended that managers are likely to increase organization value if they make use of a conservative approach towards working capital

financing and working capital policies. From the foregoing literature review it is clear that there exists a relationship between cash management practices and financial performance of an organization.

According to Bort (2014) cash is the lifeblood of the business. The key to successful cash management lies in tabulating realistic projections, monitoring collections and disbursements, establishing effective billing and collection measures, and adhering to budgetary parameters because cash flow can be a problem to the business organization. Gitman (2012) offers theoretical positions drawn from observations and consulting experience on the fact that a firm can improve its cash management efficiency by collecting accounts receivable as soon as possible. The most obvious way of bringing forward cash inflows, would be to press debtors for earlier payment although this policy will result in goodwill and problems with customers.

Maathai (2010) sought to establish the relationship between management of working capital and the profitability of retail supermarket chains in Kenya. Her research consisted of 6 retail supermarket chains in Kenya. The aim of the study was to determine the existence of a relationship between WCM and profitability. The study showed that in the retail sector, WCM has a significant effect on profitability of businesses and plays a big role in creation of value for Shareholders. Longer cash conversion cycle and average collection period had a negative effect on net operating profitability of a company.

2.3.3 Accounts Receivable Management Practices and Financial Performance

Effective management of debtors supported by a reduced vendors' payment period, minimized level of bad and doubtful debts and a comprehensive credit policy regularly increase the ability of a firm to attract new clients and in return increase financial performance. This supports the need for a comprehensive credit policy that ensures value optimization (Subramony, 2009). Cost

of cash discounts, management of credit costs and debt collection costs make up the carrying cost linked to offering credit which increase when the value of accounts receivables are increased. Lost revenue as a result of not offering credit creates the opportunity cost which reduces the amounts of debtors are increased (Lazaridis & Dimitrios, 2005). Mathuya (2010) studied how components of working capital management impact corporate profitability among listed companies in Kenya. Descriptive study made use of correlational analysis and found out that there exists a highly significant but negative correlation between receivable management and the firm's profitability. The findings revealed that organizations that are more profitable take the least time to collect cash. The study also showed that there is a highly significant positive relationship between the time for converting inventory into sales and profitability.

Raheman and Nasr (2007) conducted a correlation research on the relationship between account receivable and profitability. The study findings showed that account receivables coefficient was highly significant and positive. They recommended that company management should work to reduce the time taken to receive cash from customers in an effort to reduce agency problems. Suyaduzzaman (2006) in his study also found out that the time taken for accounts collection is related negatively to all liquidity ratios apart from net profit margins. The findings of the study affirmed that there exists a negative correlation between account receivables and liquidity.

Lizarids and Tryfonidis (2006) demonstrated in their study that managers have the responsibility and ability to improve liquidity and cut down on agency issues by reducing the credit period given to customers. The study used regression model and targeted firms in Athens. The findings indicate that; more profits should reflect more accounts receivables following the fact that organizations with higher profits have more cash to give to customers. Despite account

receivables being short-term in nature, the policy decision behind its creation in most cases has a long impact on the firm and its financial structure. This is because, after a receivables policy has been determined, it is not easy to come out of it except at the adverse market reactions costs. More over, credit decisions form part of a well-integrated approach and actively interface with marketing, production, and finance of an organization. From the foregoing literature review it is clear that there exists a relationship between accounts receivables management practices and financial performance of an organization.

Michalski (2012) provides that an upsurge in debtors level in an organization increases both the net working capital and the costs of holding and managing debtors and this leads to a decline in the firm value. Lazaridis and Dimitrios (2015) argue that businesses which go in for increase in their debtors to an optimal position increase their profitability as a result of increased sales and market share. Juan and Martinez (2012) emphasize that companies can build value by decreasing their debtors' days, while Deloof (2013) writes that the extent of debtors' collection period affects firms' performance negatively. Sushma and Bhupesh (2012) also affirm that, having a sound credit policy guarantees suitable debt collection practices and this is key in enhancing effectiveness in debtors' management hence affecting the performance of companies.

Mathuva (2010) conducted a descriptive study using correlational analysis on the influence of working capital management components on corporate profitability within the listed firms in Kenya. The study revealed that; there is a highly significant negative relationship between the management of receivables and profitability hereby reflecting that more profitable firms take the shortest time to collect cash from their customers. The study also revealed that there is a highly significant positive relationship between the period taken for inventory to be converted into sales vis a vis profitability. Findings by a study indicated that receivables form a

large percentage of the net operating profit. In a research on the relationship between working capital management and financial performance of oil marketing firms in Kenya, the regression analysis showed that oil companies in Kenya had huge investments in inventory and high level of borrowings and consequently, low net of investments in current assets.

2.3.4 Accounts Payable Management Practices and Financial Performance

Mutungi (2010) conducted a research to determine the connection between management of working capital and financial performance targeting oil marketing firms in Kenya listed under the petroleum institute of East Africa within Nairobi. The study sample was 59 registered oil marketers. The research findings were that, accounts payables management practices have a great effect on the return risk and share price of the company.

Uyar (2009) study findings were that there exists a negative relationship between organization profitability and accounts payables. These results were consistent with the previous findings that less profitable firms wait longer to settle their bills. This is also in agreement with other scholars who affirm that there exists a negative significant relationship between net profitability and the average inventory turnover, collection period, cash conversation, and average payment. The study findings recommend that managers can easily increase profitability and create value by reducing the time for inventories and accounts receivables to a reasonable minimum.

Kiilu (2010) carried out a research on practices related to working capital management targeting large building construction companies in Kenya. The findings of the study showed that most of the firms under study had a written statement of leading the cash amount to hold and this included both cash at bank and petty cash. The companies without a written statement claimed that the cash requirement at any given time determined the cash on hold. According to the study,

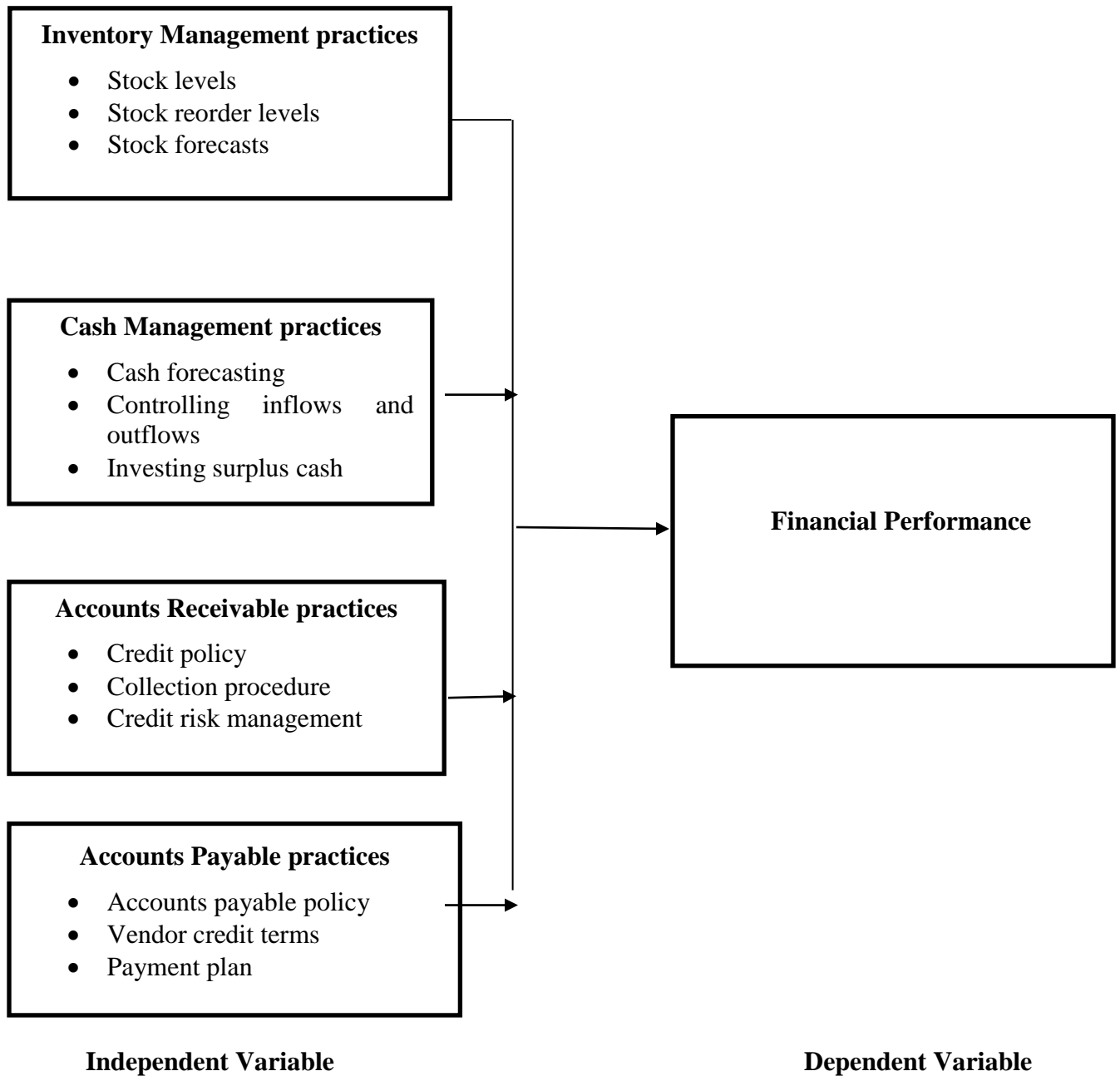
one of the leaning working capital management practices observed was the use of cash budgets. From the foregoing literature review it is clear that there exists a relationship between accounts payables management practices and financial performance of an organization. The study seeks to apply the following hypothesis

Most studies suggest that paying payables closer to the due date is the best practice (Deloof, 2003; Lazaridis & Tryfonidis, 2006; Sayaduzzaman, 2006; Garcia-Teruel & Martinez-Solano, 2007; Raheman & Nasr, 2007; Falope & Ajilore, 2009). These findings are pegged on the belief that shortening the accounts collection period improves company firm performance. Companies may also opt to the accounts collection period due to competition. This is as a result of intense competition in the industry where companies are forced to grant discounts to their customers to encourage early payments. Conversely, if the bargaining power of customers is high, then a company may be forced to relax its credit policy by lengthening the time it takes to collect payments from its customers. Zinger (2009) called for a careful and an effective analysis of the credit policy especially during periods of credit crisis.

2.4 Conceptual Framework

The dependent variables will be inventory management practices, cash management practices, accounts receivable practices, and accounts payable practices. The dependent variable will be financial performance of companies.

Figure 2.1. Conceptual Framework



2.5 Research Gap

Policies and practices on working capital management determine the cash amount held by an organization. Inadequate working capital is likely to result in the inability of the organization to meet its financial obligations. Despite this, many organizations still ignore working capital management practices which have proved to be a requirement for the better financial performance of firms. In Kenya; most studies have looked at working capital management in parts, but it needs to be studied from the time the raw and packing materials are ordered to the time the sales are paid for. Some findings show conflicting results regarding the correlation between working capital management practices and financial performance. This situation calls for the current study to investigate the effects of working capital management practices on the financial performance of food and beverage companies in Kenya

2.6 Operationalization of Variables

TABLE 1Operationalization of Variables

Type of Variable	Variable	Scale of Measure	Question in questionnaire
Independent Variables	Inventory management practices: Inventory holding periods Inventory management policies	Interval scale	Part B
	Cash management practices: Cash management policies Cash management practices	Interval scale	Part C
	Accounts receivable management practices: Credit management policies Accounts receivable periods	Interval scale	Part D
	Accounts payable management practices: Accounts payable policies Accounts payable periods	Interval scale	Part E
Dependent Variables:	Financial performance of food and beverage manufacturers in Kenya	Interval scale	Part F

CHAPTER THREE

3.1 Introduction

The phases and stages that were followed to complete the research are in this chapter. It included an overall plan, structure, and scheme considered to assist the researcher in responding to the research questions. The specific subsections incorporate; Research design, Target population, sampling and sampling procedure, data collection instruments, validity and reliability of the instruments, data collection procedures and data analysis.

3.2 Research Design

The design of the research is the general strategy that is intended to address the objectives of the study. It is the plan or scheme outline that was used to come up with responses to the study problem. It entailed the collection, estimation, and investigation of data. The purpose of this research was to find out the effects of working capital management practices on the financial performance of food and beverage manufacturers in Kenya. Descriptive research methods were therefore used. The descriptive approach was used to depict the characteristics of the phenomenon under study. This approach cannot be applied as the basis of a causal relationship, but it offers a knowledge base that goes about as a foundation for different kind of conclusive research methodology. This research design allowed the use of regression in analysis of the relationship between predictor and predicted variables.

Descriptive survey enabled the identification, as well as classification of the characteristics and elements of the subject. It achieves this by attempting to describe things like attitude, behavior, characteristics, and values. In addition, the descriptive approach was best suited for this study because it allowed the researcher to gain in-depth information on working

capital management practices on the financial performance of food and beverage companies in Kenya

3.3 Target Population

The population of interest also referred to the sampling frame, is a rundown of components from which the research sample will be drawn (Cooper & Schindler, 2010). Observable characters need to be present on the target population so as to enable the researcher to generalize the research findings. The target population for this study was Food and Beverage manufacturing companies in Kenya that are Kenya Association of Manufacturers members. In total there are 181 food and beverage registered members which represent 24% of KAM membership.

The study settled on those food and beverages companies that are registered with KAM because being an advocacy body of manufacturers in the country, it is likely to share with member companies the relationship between working capital management practices and the financial wellbeing. This means that KAM members might be well informed with regards to responses of working capital management practices and financial performance more than those firms that are not members. KAM members are therefore deemed able to provide intensive data on how working capital effects financial performance than non-members.

3.4 Sampling and Sampling Procedure

A sample of a study is defined as a section of the total population Spiegel (2008). Kothari (2004) defined a sample study as a sample of a collection of units selected from a population to represent it. A good sample should represent the entire population as much as possible. The larger the sample the smaller the error and the smaller the sample, the large the sampling error. As per Kerlinger (1973); at least 10% sample size of the target population is huge enough and a reliable data analysis by cross tabulation can be conducted. A 10% or more sample size provides

the required accuracy level in the large population estimates and gives room for analyzing the significant differences between the estimates. The study made use of the judgmental sampling. Judgmental sampling is a non-probability sampling technique where the researcher uses professional judgment and own knowledge to select a sample. It is also known as authoritative or purposive sampling.(Rocco J. Perla & Lloyd P. Provost, 2012). The study sampled all the 65 food and beverage manufacturers in Nairobi county which was taken as a representative of the whole country. This was more than 10 percent of the target population of 181 members.

3.5 Research Instrument

The study used questionnaires as the preferred tool for primary data collection. A questionnaire is a research tool that is included with questions and other prompts aimed at collecting information from selected respondents (Mugenda & Mugenda, 2004). There are different data collection tools that can be used by a researcher in the process of collecting data. Some of the available instruments that can be used to collect data include interviews, observations, focus groups, recordings, historical reviews and questionnaires (Bryman, 2008; Mugenda & Mugenda, 2003). Each tool is used depending on the type of data that is needed for the research, the study design, the researcher's preference, the ease of applicability, and the kind of research questions. Since the study was out for data collection that assessed the effects of working capital management practices on financial performance, collecting accurate and precise information was of the essence. The questionnaire was therefore used to collect primary data. Questionnaires can either be closed or open-ended. In the case of open-ended questionnaires, the categories of the answers are exhaustive and there is room for respondents to give their opinions. The study also included document analysis to measures the financial performances of food and beverage companies in Kenya.

3.6 Validity and Reliability of the Instruments

Essentially, validity is referred to as the level to which a research tool measures what it is supposed to measure (Saunders et al., 2009). To establish validity, the research questions were made short, clear and direct to eliminate ambiguity and the chances of gathering content that is less valid. Validity concerns itself with the critical issues of the correlation between a concept and its measurement. Reliability indicates the consistency and stability with which the research instrument measures the study concept and assists to assess how good a measure is (Saunders et al., 2009). The questionnaire was also made to be quantitative by providing choices to enhance content validity. To ensure this, the structure of the questionnaire included both open and closed questions. The validity and reliability of secondary data depended on the method used to collect data and the source of the data. The entity that provides or is responsible for the data is very important and can be based on in ascertaining the reliability of the source of data. Sources that are printed publications are always considered to have reliable data (Saunders et al., 2009). Cronbach coefficient alpha which provides information on scale of zero to one was applied in order to reveal the consistency. A scale of more than 0.7 is regarded as appealing to conform to internal reliability.

For this study; the scale reliability coefficient was 0.9076 which is more than 0.7 confirming that the questionnaire conformed with internal reliability.

3.7 Data Collection Procedure

Primary data was collected from the sampled food and beverages companies in Kenya. Primary data is normally collected for a specific purpose while secondary data targets data that had been collected and compiled previously. Primary data was collected by self-administering of questionnaires to financial officers of the selected companies. This approach was selected

because it was cheap, convenient, easier and faster to administer the questionnaires. Questionnaires are convenient to the respondents because they can fill them when they are free.

3.8 Data Processing and Analysis

On completion of data collection, the questionnaires were coded to do away with questionnaires that were not completed as expected. The data was then cleaned and passed through Stata for analysis. Cleaning of the data involved checking if the questionnaires were completed as required. Descriptive statistics was used to analyze the quantitative data. Inferential statistics including regression was used to determine the relationship between the study variables. The research questions being addressed determine the statistics that was used. Stat software was used to process the collected information to achieve inferential results. Tables, graphs, and charts were used to present the findings in summary form.

3.8.1 Diagnostics tests

Diagnostic tests are tests to confirm that the assumptions of linear regression are met. Diagnostics test were done to establish the significance of the model. The tests to be done included normality, heteroscedasticity, randomness of errors and multicollinearity. Normality test was done by use of Shapiro-Wilks tests. The Shapiro–Wilk test is a test of the composite hypothesis that the data are independent, identically distributed and normal(Zofia, 2016).The rule of thumb is that variables are normally distributed if its kurtosis and skewness values are between -1.0 and $+1.0$ (Zofia ,2016). Heteroscedasticity test was done by use of Breusch-pagan test The Breusch-Pagan test is intended to detect linear form of heteroskedasticity. Breusch-pagan test tests the null hypothesis that the variance of errors is all alike versus the alternative hypothesis that the variance of errors is a multiplicative function of one or more variables (Richard 2015). Randomness of residuals was tested by use of Rvf Plot.Rvf plot graphs residuals

against fitted values. The plot is used to determine the non-linearity, randomness of residuals and outliers (Anderson 2013). Multicollinearity was tested by use of variance inflation factor -VIF. VIF quantifies the severity of multicollinearity in an OLS regression analysis.

3.8.2 Analytical Model

Regression analysis was done on inventory management practices, cash management practices, accounts receivable practices and accounts payable practices to investigate further, the relationship between working capital management practices and financial performance of food and beverage companies in Kenya using the formula before.

Direct relationship

$$Y = \beta_{0i} + \beta_1 X_1 + \varepsilon \tag{2}$$

Where, β_{0i} is the general impact of the independent variable

Y ; β_{0i} , is the linear equation intercept, and

ε is the corresponding residuals in the formula (Fairchild & Mackinnon 2009).

The general regression will be

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \tag{3}$$

Whereby;

Y = Financial performance of Food and Beverages companies in Kenya

β_0 = Intercept, which is the value of Y when value of X is zero.

X_1 = Inventory management practices

X_2 = Cash management practices

X_3 = Accounts Receivable practices

X_4 = Accounts Payable practices

ε = Error term

$\beta_1, \beta_2, \beta_3$ and β_4 are coefficients for IMP, CMP, ARP and APP respectively

The analyzed information was presented in tables, charts and figures for interpretation to establish the relationship between financial performance and working capital management practices for food and beverage manufacturing firms.

CHAPTER FOUR

4.1. Introduction

This chapter presents the data that was collected on the effect of working capital management practices on the financial performance of the food and beverages manufacturing companies in Kenya. Questionnaires were administered to a sample size of 65 respondents. The chapter also consists of analysis of background information and analysis of study objectives.

4.2. Response Rate

Out of 65 questionnaires administered, 54 were duly filled and sent back making the response rate 83.1%. Mugenda (2003) observed that a response rate above 50% is adequate for analysis and reporting, a rate of 60% is good and a response rate of 70% and over is excellent. The response rate for this study, 83.1%, was therefore representative and adequate to answer the research questions.

4.3 Demographic Information

The background information included position in the firm, gender, age, duration of work in the organization, company period of operations, length of time the company has been a member of Kenya Association of Manufacturers, organizational form, workers employed by the company, types of products the company deal with, and formal organization structure.

4.3.1. Respondent Position in the Firm

The respondents were requested to indicate their position in the firm. Accordingly, the findings are as presented in figure 4.2.

Figure 4.2. Respondent Position in the Firm

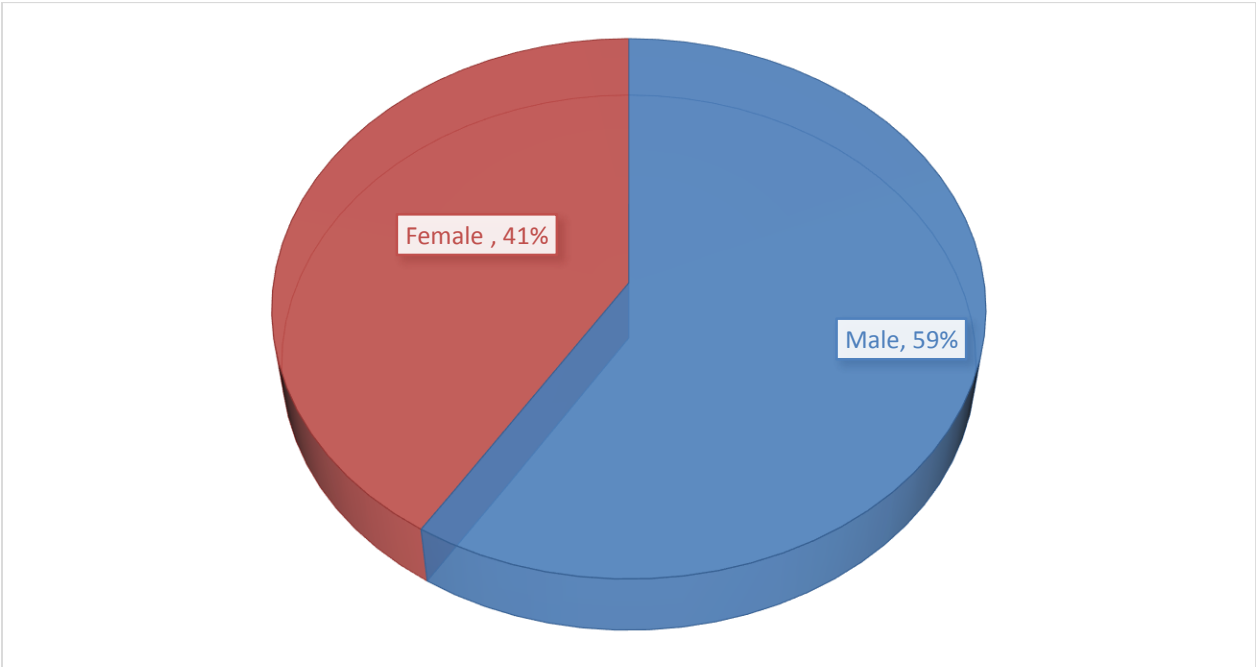


From the findings, majority (63%) of the respondents were financial accountants while 37% of the respondents were financial managers. This implies that majority of the respondents were financial accountants.

4.3.2. Respondent Gender

The respondents were requested to indicate their gender. Accordingly, the findings are as presented in figure 4.3.

Figure 4.3. Distribution of Respondents by Gender



From the findings, majority (59%) of the respondents were male while 41% of the respondents were female. This implies that even though most of the responses emanated from males there was gender balance.

4.3.3. Respondent Age

The study sought to establish the age of the respondents and the findings are as shown in Table 4.1

Table 4.1. Distribution of Respondents by Age

Age of Respondents	Frequency(n)	Percentage (%)
25-29 years	5	9.3%
30-34 years	11	20.3%
35-39 years	20	37.0%
40-44 years	13	24.1%
45-49 years	3	5.6%
Above 50 years	2	3.7%
Total	54	100%

According to the findings, 37.0% of the respondents were between 35-39 years, 24.1% were between 40-44 years, 20.3% were 30-34 years, 9.3% were 25-29 years, 5.6% were 45-49 years, while 3.7% were over 50 years and below respectively. This depicts that most of the respondents were aged enough and thus could offer high quality information because of their experience.

4.3.4. Respondent Duration of Work in the Organization

The study sought to establish the respondent duration of work in the organization and the findings are as shown in Table 4.2

Table 4.2. Respondent Duration of Work in the Organization

Duration	Frequency(n)	Percentage (%)
Less than 1 year	2	3.7%
2-5 years	16	29.6%
5-10 years	29	53.7%
More than 10 years	7	12.9%
Total	54	100%

From the findings; majority (53.7%) of the respondents indicated that they had worked in the organization for a duration between 5-10 years, 29.6% indicated 2-5 years, 12.9% indicated more than 10 years, while 3.7% indicated less than one year. This depicts that the respondents had worked in the organization for a sizeable duration of time and thus had a clear understanding of effect of working capital management practices on the financial performance of the food and beverages manufacturing companies in Kenya.

4.3.5. Company Period of Operations

The respondents were requested to indicate the company commencement of operations. The findings are shown in table 4.3

Table 4.3. Company Period of Operations

Duration	Frequency(n)	Percentage (%)
1-10 years	4	7.4%
11-20 years	12	22.2%
21-30 years	26	48.1%
31-40 years	8	14.8%
41-50 years	3	5.6%
More than 10 years	1	1.9%
Total	54	100%

From the findings most (48.1%) of the respondents that the company commencement of operations was between 11-20 years, 22.2% indicated 21-30 years, 14.8% indicated 31-40 years, 7.4% indicated 1-10 years, 5.6% indicated 41-50 years, while 1.9% indicated more than 10 years. This depicts that most of the organizations had operated for a sizeable duration of time and thus the effect of working capital management practices on the financial performance of the food and beverages manufacturing companies in Kenya could be assessed with ease.

4.3.6. Length of Time the Company as a Member of KAM

The respondents were requested to indicate the length of time the company has been a member of Kenya Association of Manufacturers. The findings are shown in table 4.4

Table 4.4. Length of Time the Company as a Member of KAM

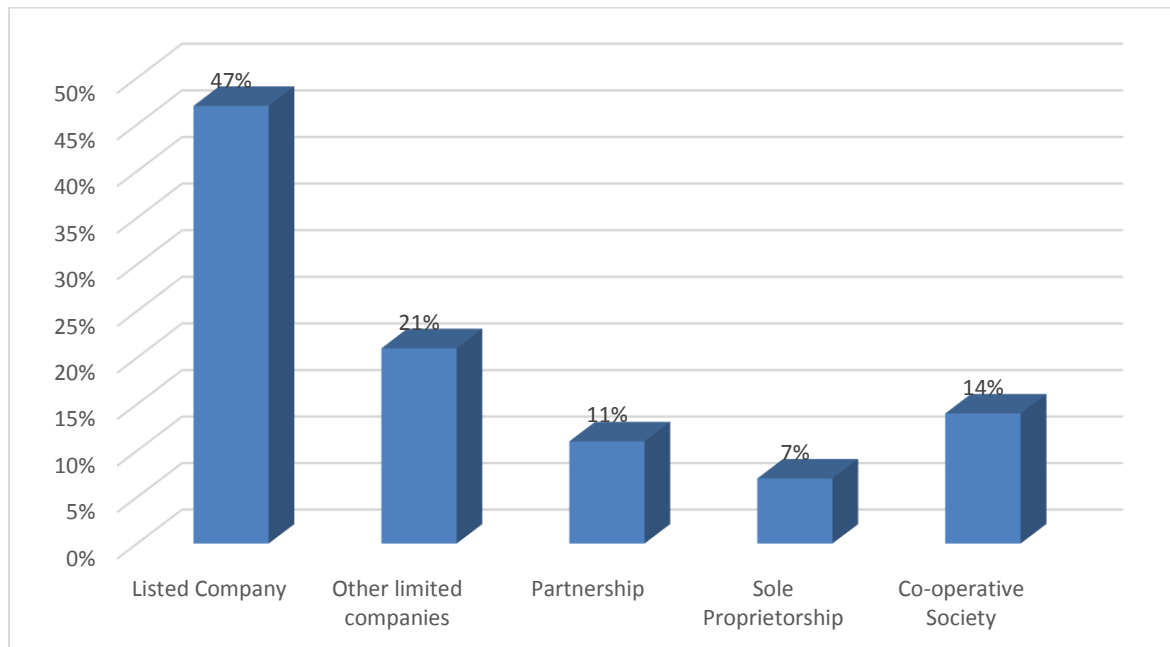
Duration	Frequency(n)	Percentage (%)
1-5 years	2	3.6%
6-10 years	25	46.3%
11-15 years	13	24.1%
16-20 years	7	13.0%
21-25 years	4	7.4%
More than 25 years	3	5.6%
Total	54	100%

From the findings; most (46.3%) of the respondents indicated that their organization had been a member of Kenya association of manufacturers for a duration of 6-10 years, 24.1% indicated 11-15 years, 13.0% indicated 16-20 years, 7.4% indicated 21-25 years, 5.6% indicated more than 25 years, while 3.6% indicated 1-5 years. This depicts that the companies were legally registered and had an organization that could forward their interests to the relevant stakeholders.

4.3.7. Organizational Form

The respondents were requested to indicate the form of their organization. The findings are shown in figure 4.4.

Figure 4.4. Organizational Form



Form the findings; most (47%) of the respondents indicated that their organization was a listed company, 21% indicated other limited companies, 14% indicated cooperative society, 11% indicated partnership, while 7% indicated sole proprietorship. This depicts that most of the organizations were listed companies.

4.3.8. Workers Employed by the Company

The respondents were requested to indicate the number of workers employed by the company.

The findings are shown in table 4.5

Table 4.5. Workers Employed by the Company

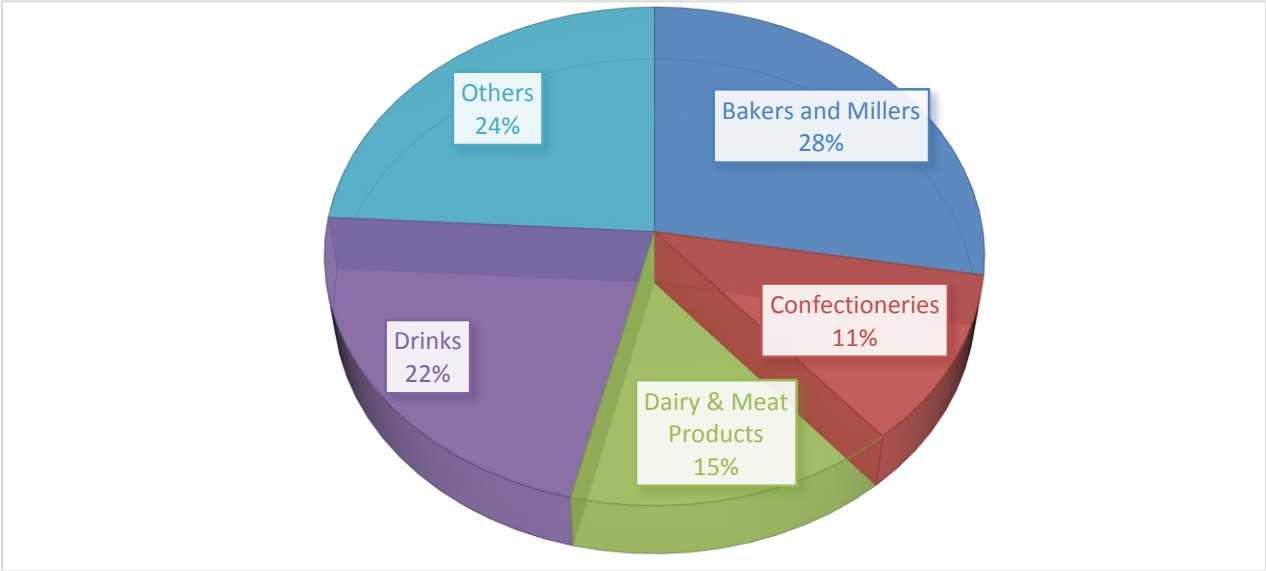
Number of Workers	Frequency(n)	Percentage (%)
Between 1 and 10 workers	1	1.9%
Between 11 and 50 workers	4	7.4%
Between 51 and 100 workers	33	61.1%
Between 101 and 250 workers	11	20.3%
Between 251 and 500 workers	3	5.6%
Over 500 workers	2	3.7%
Total	54	100%

From the findings; majority (61.1%) of the organization had between 51-100 workers, 20.3% indicated 101-250 workers, 7.4% indicated 11-50 workers, 5.6% indicated 251-500 workers, 3.7% indicated over 500 workers, while 1.9% indicated 1-10 workers. This depicts that majority of the organizations had between 51-100 workers.

4.3.9. Types of Products the Company Deal With

The respondents were requested to indicate the types of products the company deal with. The findings are shown in figure 4.5.

Figure 4.5. Types of Products the Company Deal With

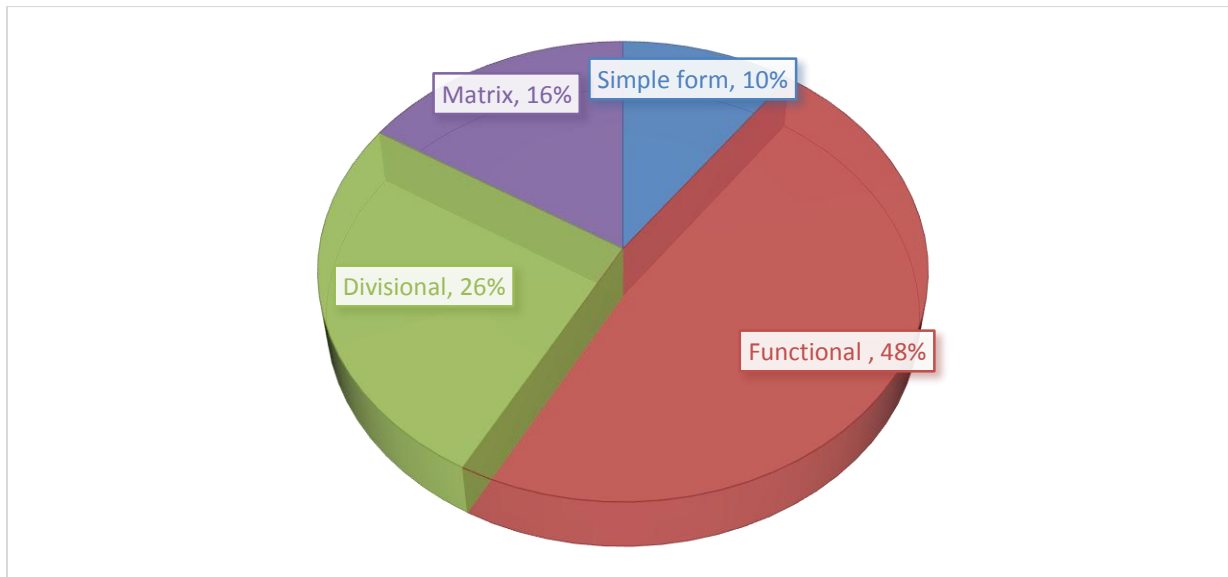


Form the findings most (28%) of the respondents indicated that their company are Bakers and Millers, 22% indicated they deal with drinks, while 15% indicated they deal with dairy and meat products, while 22% dealt with all other food and beverage products categories including tobacco, vegetable oil, fresh produce, noodles among others. This depicts that most of the companies dealt with raw materials.

4.3.10. Formal Organization Structure

The respondents were requested to indicate the what formal organization structure does their company have. The findings are shown in figure 4.6.

Figure 4.6. Formal Organization Structure



From the findings most (48%) of the respondents indicated that their company structure was functional, 26% indicated divisional, 16% indicated matrix, while 10% indicated simple form. This depicts that most of the companies had functional form of structure.

4.4. Study Variables

4.4.1. Inventory Control Practices

The respondents were requested to indicate their level of agreement on statements on inventory control practices. The responses were placed on a 5 Likert scale where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree. The findings are shown in Table 4.6.

Table 4.6. Inventory Control Practices

Statement	Mean	Std. Dev
The firm has a defined level of inventories for raw materials	3.70	1.0394
The firm reviews inventory levels periodically	3.19	0.9127
The firm keeps accurate inventory records	4.13	0.8020
The firm has installed an inventory control system	4.15	0.8334
The company exercises stock counts periodically	4.33	0.7268
The company periodically updates the costing of stock	4.19	0.8027
The company scraps expired stocks	4.17	0.8849
The company revalues stocks periodically	4.13	1.0288
The firm accounts for stock production losses	4.33	0.7770
There exists mechanism to recycle stocks	4.24	0.7755
The firm periodically forecasts inventory requirements	4.35	0.7563
Information Technology is important in managing stocks	4.33	0.7770

From the findings the respondents agreed that the firm periodically forecasts inventory requirements (mean=4.35), followed by the company exercises stock counts periodically, the firm accounts for stock production losses, and information Technology is important in managing stocks respectively (mean=4.33), there exists mechanism to recycle stocks (mean=4.24), the company periodically updates the costing of stock (mean=4.19), the company scraps expired stocks (mean=4.17), the firm has installed an inventory control system (mean=4.15), the firm keeps accurate inventory records, and the company revalues stocks periodically respectively (mean=4.13), the firm has a defined level of inventories for raw materials (mean=3.7), and that

the firm reviews inventory levels periodically (mean=3.19). This depicts that the firm periodically forecasts inventory requirements. Cannon (2013) indicates that when the effects of time are considered, turnover improvement on average has a slightly negative effect on ROA. Additionally, turnover improvement exhibits a prominent random effect. Consistent with Cannon (2013), another Koliass et al. (2014) present that inventory turnover ratio (as a measurement of inventory management), is negatively correlated with gross margin. Moreover, there exists a negative relationship between gross margin and inventory turnover. This implies that retailers' trade off gross margin for inventory turns to achieve similar return on inventory investment since, if inventory turnover ratio is lower than targeted given the level of gross margin, then management should be alarmed with this inefficiency.

4.4.2. Cash Management

The respondents were requested to indicate their level of agreement on statements on cash management. The responses were placed on a 5 Likert scale where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree. The findings are shown in Table 4.7.

Table 4.7. Cash Management Practices

Statement	Mean	Std. Dev
The firm prepares regular cash projections	3.96	0.9583
The firm makes payments on priority basis	4.17	0.9060
The firm does regular bank reconciliations	3.35	1.4296
The firm has a defined investment avenue for excess cash	3.96	0.8894
The firm maintains buffer cash balance	3.43	0.9235
The company has a bank overdraft facility	4.20	0.8982
The firm has a short-term finance loan with the bank	3.43	0.9437
The firm has multiple bank accounts	3.15	0.9792
The excess cash is held for future obligations	4.15	0.8105
Information Technology is important in managing cash	4.15	0.8105
The company updates prepayment schedules	4.35	0.7309

From the findings; the respondents agreed that the company updates prepayment schedule (mean=4.35), followed by the company has a bank overdraft facility (mean=4.2), the firm makes payments on priority basis (mean=4.17), the excess cash is held for future obligations and information technology is important in managing cash respectively (mean=4.15), the firm prepares regular cash projections and the firm has a defined investment avenue for excess cash respectively (mean=3.96), the firm maintains buffer cash balance, and that the firm has a short-term finance loan with the bank respectively (mean=3.43), the firm does regular bank reconciliations (mean=3.35), and that the firm has multiple bank accounts (mean=3.15). This depicts that the company updates prepayment schedule. Brynjolfsson (2016) found that IT

investments affected productivity and contributed to consumer welfare through better services and lower prices, but this did not necessarily improve profitability. This was because productivity benefits passed to consumers through lower prices, and not directly to superior profitability. Gitman (2012) offers theoretical positions drawn from observations and consulting experience on the fact that a firm can improve its cash management efficiency by collecting accounts receivable as soon as possible. The most obvious way of bringing forward cash inflows, would be to press debtors for earlier payment although this policy will result in goodwill and problems with customers.

4.4.3. Accounts receivable practices

The respondents were requested to indicate their level of agreement on statements on accounts receivable. The responses were placed on a 5 Likert scale where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree. The findings are shown in Table 4.8.

Table 4.8. Accounts Receivable Practices

Statement	Mean	Std. Dev
There exists a credit policy	4.22	0.7689
Credit limit is set for each customer	4.44	0.7439
Invoicing is prompt	4.17	1.0233
Customers who delay payments are blacklisted	4.24	0.7755
Bad debt levels are reviewed periodically	3.41	1.0190
Customer statements are sent periodically	4.13	0.8020
The firm sends overdue notices to customers	4.15	0.8105
The firm gives cash discounts to encourage early payments	4.39	0.7115

From the findings; the respondents agreed that credit limit is set for each customer (mean=4.44), followed by the firm gives cash discounts to encourage early payments (mean=4.39), customers who delay payments are blacklisted and that Information Technology is important in managing debtors respectively (mean=4.24), there exists a credit policy (mean=4.22), invoicing is prompt (mean=4.17), the firm sends overdue notices to customers (mean=4.15), customer statements are sent periodically (mean=4.13), and that bad debt levels are reviewed periodically (mean=3.41). This depicts that credit limit is set for each customer. Atrill (2012) attributes low receivable collection potential among firms to lack of proper debt collection procedures such as prompt invoicing and sending out regular statements. This causes the increase risk of late payment and defaulting debtors. Deloof (2013) also found that firms can increase their profitability by reducing the debtors' collection period. According to Bort (2014) cash is the lifeblood of the business. The key to successful cash management lies in tabulating realistic projections, monitoring collections and disbursements, establishing effective billing and collection measures, and adhering to budgetary parameters because cash flow can be a problem to the business organization. Gitman (2012) offers theoretical positions drawn from observations and consulting experience on the fact that a firm can improve its cash management efficiency by collecting accounts receivable as soon as possible. The most obvious way of bringing forward cash inflows, would be to press debtors for earlier payment although this policy will result in goodwill and problems with customers.

4.4.4. Accounts payable practices

The respondents were requested to indicate their level of agreement on statements on accounts payable practices. The responses were placed on a 5 Likert scale where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree. The findings are shown in Table 4.9.

Table 4.9. Accounts Payable Practices

Statement	Mean	Std. Dev
The firm has set up payment policy	4.37	0.7345
The firm reviews level of accounts payable	3.70	1.0394
The firm pays creditors in good time	3.19	0.9127
The firm has approved contracts with suppliers	4.13	0.8020
The company maintains accrual accounts	4.15	0.8334
There exists a periodic payment plan	4.33	0.7268
The company uses letter of credit for import payments	4.19	0.8027
The company pays by cash to get discounts	4.17	0.8849
Information Technology is important in managing payables	4.13	1.0288
The company renegotiates payment terms	4.33	0.7770

From the findings; the respondents agreed that the firm has set up payment policy (mean=4.37), there exists a periodic payment plan and the company renegotiates payment terms respectively (mean=4.33), the company uses letter of credit for import payments (mean=4.19), the company pays by cash to get discounts (mean=4.17), the company maintains accrual accounts (mean=4.15), the firm has approved contracts with suppliers and that Information Technology is

important in managing payables respectively (mean=4.13), the firm reviews level of accounts payable (mean=3.7), and that the firm pays creditors in good time (mean=3.19). This depicts that the firm has set up payment policy. Christopher (2014) asserts that the longer the accounts payables period the more advantageous for the firm as such fund can be put to other uses. However, longer accounts holding period can erode a firm's credit worthiness. In this study, the trade payables period was found to be substantially shorter than the receivables period. This meant that the companies were accelerating their payables more than their receivables. Aminu (2012) states that working capital management is an essential tool in the success story of any firm in terms of profitability. A good or positive working capital enables a firm to access finance from short-term creditors and even long-term creditors. In the long-run, creditors seek firms with a positive working capital since it serves as an assurance of loan repayment. The issue of a positive working capital calls for working capital management which, according to Pandey (2014), is the administration of all components of working capital-cash, marketable securities, debtors (receivables) and stock (inventories) and creditors (payables).

4.4.5. Financial performance

The respondents were requested to indicate their level of agreement on statements on company financial performance in the last five years. The responses were placed on a 5 Likert scale where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree. The findings are shown in Table 4.10.

Table 4.10. Financial Performance

Statement	Mean	Std. Dev
The company has experienced growth on net profit over the past five years	4.35	0.7309
The company results indicate Improvement in Return on Investment (ROI) for the past five years	4.22	0.7689
The company has increase in no. of employees over the past 5 years	4.44	0.7440
The company has increased the no. of customers in the past five years	4.17	1.0233
The company market coverage has increased in the past five years	4.24	0.7755
The company has developed new products based on market change in the past five years	3.41	1.0190

From the findings; the respondents agreed that the company has increase in number of employees over the past 5 years (mean=4.44), followed by the company has experienced growth on net profit over the past five years (mean=4.35), the company market coverage has increased in the past five years (mean=4.24), the company results indicate Improvement in Return on Investment (ROI) for the past five years (mean=4.22), the company has increased the no. of customers in the past five years (mean=4.17), and that the company has developed new products

based on market change in the past five years (mean=3.41). This depicts that the company has increase in number of employees over the past 5 years.

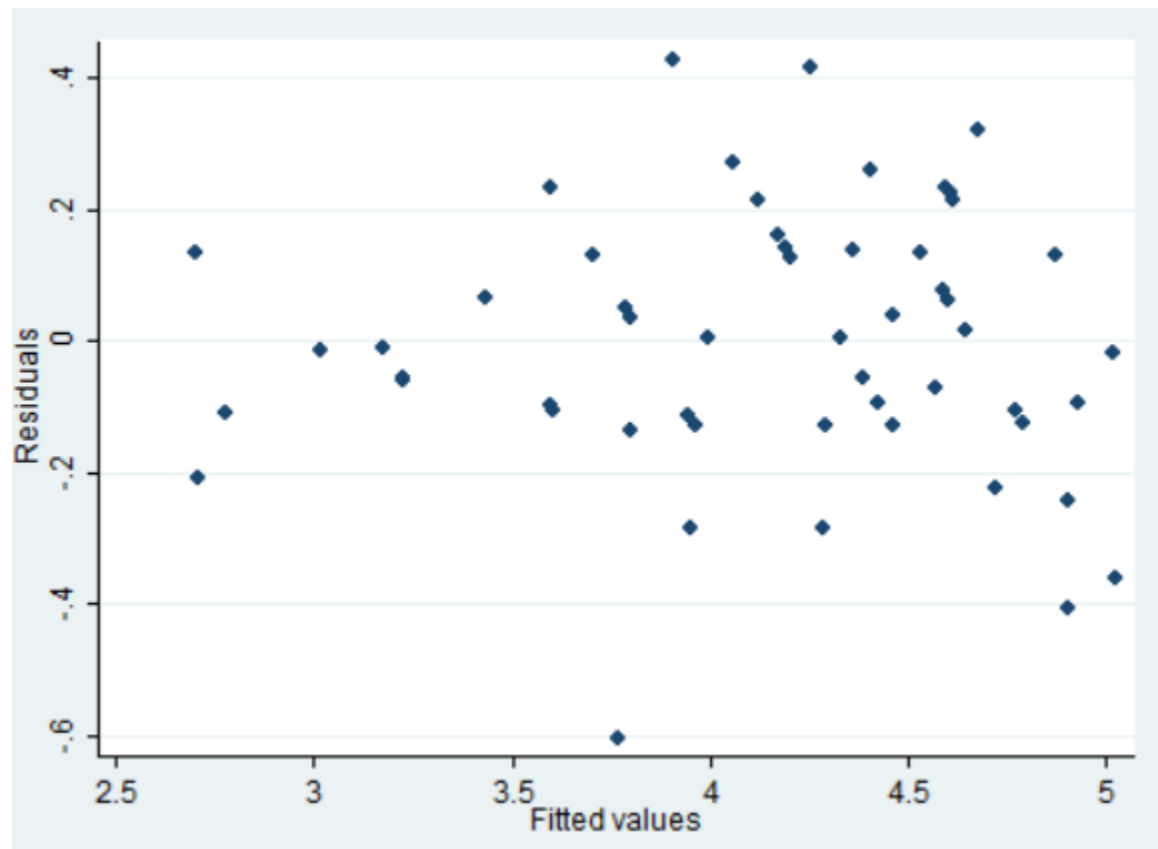
4.5. Diagnostic Tests

Statistical procedures are founded upon basis assumptions which when violated would not only undermine meaningful research but also would result in biased and inefficient research inferences (Wilkinson & Akenhed, 2013). In order to avoid invalidation of statistical assumption, this study conducted diagnostic tests to ensure that: a) error terms are normally distributed with a mean of zero, b) error terms have a constant variance to avoid heteroscedasticity, c) error terms are random independent to avoid autocorrelation, d) no multicollinearity or strong linear relationship between variables that are jointly fitted in repressor models and e) there is panel level stationary. The explanation of how best Type I and Type II errors were controlled during statistical tests and the transposition of the ordinal data gathered using Likert scales into quasi interval data for higher statistical computations is also expounded.

4.5.1 Test of Randomness of residuals

RVF plot was used to test the randomness of errors.

Figure 4.7. Test for Randomness of Residuals



From the above RVF plot, the residuals are randomly distributed. This means that, residuals are not correlated to the predictor variables.

4.5.2 Test for normality

This study used some parametric tests such as correlation analysis, regression analysis and analysis of variance owing to the assumption that that the population was normally distributed. This assumption should be taken carefully to ensure that it holds otherwise the conclusions may be rendered inaccurate and unreliable with regard to the phenomenon under consideration (Field, 2013). In order to ascertain that research data was gathered from a normal population, Shapiro-Wilk Test which is based on correlation between data and corresponding normal scores was used

as it offers a higher power compared to K-S test even after Lilliefors correlation (Peat & Barton, 2005; Steinskog, 2007).

Shapiro-Wilk Test is also recommended by researchers since it uses power to measure and detect the values of tests of normality (Thode, 2002). In addition, since this study had a sample greater than 30, a single Shapiro-Wilk Test for normality was just enough since non-normality would not significantly affect parametric tests (Elliott & Woodward, 2007; Field, 2013).

The results of a small value of W indicates that the sample is *not* normally distributed thus rejection of null hypothesis that the population is normally distributed for values in a given significance level (Peat & Barton, 2005). In this study, Shapiro-Wilk (W) was computed using Stata software at a significance level of 95%. Since the probability > z values were 0.61547 for $\alpha \geq 0.05$, the null hypothesis was not rejected hence the conclusion that the research population does not deviate significantly from the normal distribution. The results of Shapiro-Wilk Test are presented in Table 4.11

Table 4.11. Shapiro-Wilk W test for Normal data

Variable	Obs	W	V	Z	Prob>z
Residuals	54	0.98255	0.872	-0.294	0.61547

H0: Residuals have a normal distribution.

Ha: Residuals do not have a normal distribution.

4.5.3 Test for multicollinearity

Multicollinearity between independent variables was tested using Variance Inflation Factor (VIF) or Tolerance Analysis at 10.0 so as to inform integration of other analysis techniques like

factor analysis. The level of inflation of the variance of the estimated regression coefficients in relation to when the experiment variables are non-linearly related. While the acceptable levels of VIF to indicate that no multicollinearity exists is between 1 and 10 (Allison, 1991). In this study, the as stated in Table 4.12, VIF for IMP (13.74) and APP (10.55) than 10 indicating presence of multicollinearity which was severe. Upon elimination of APP, the VIF for IMP dropped to 2.81 < 4.0 indicating that multicollinearity was not a major problem.

Table 4.12. Test for Multicollinearity.

Variable	VIF	1/VIF
Average IMP	13.74	0.072783
Average APP	10.55	0.094766
Average CMP	1.91	0.523724
Average ARP	1.84	0.544146
Mean VIF	7.01	

4.5.4. Test for homoscedasticity and heteroscedasticity

Heteroscedasticity occurs when the variance of the error terms differs across observations. Heteroscedasticity is useful to examine whether there is a difference in residual variance of the observation period to another period of observation (Godfrey, 1996). The study utilized Glejser test (1969) conducted by regression residual value of the independent variable. In the case, there is an assumption that if the Sig. value > 0.05, then there is no problem of heteroscedasticity. The results for tests of Heteroscedasticity were as presented in Table 4.13.

Table 4.13. Test for Heteroscedasticity

estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of AverageFinancialperformance

chi2(1) = 0.58

Prob > chi2 = 0.4479

H0, the residuals a constant variance

H1, the residuals do not have constant variance

The p. value 0.4479 is more than 0.05, hence H0 was not rejected and it was concluded that the residuals have a constant variance.

4.6. Model Fitting

The study utilized simple regression analysis to find out the relationship between the predictor variables and financial performance of food and beverages companies in Kenya. The researcher utilized Microsoft excel to code the data and Stata software to produce the output of the regression analysis. The coefficient of determination was used to explain how the change in the dependent variable can be explained by the change in the independent variables. The dependent variable for the current study was financial performance of food and beverages companies in Kenya while the independent variables were inventory management practices, cash management practices, accounts receivable management practices, and accounts payable management practices.

4.6.1 ANOVA results

The table below provides the ANOVA results of the relationship between the predictor variables and financial performance of food and beverages companies in Kenya. The findings are as shown in table 4.14

Table 4.14. ANOVA of the Regression

Source	SS	df	Df	MS	Number of obs =	54
					F(4, 49)	111.41
Model	19.708023		4	4.92700576	Prob > F	0
Residual	2.16697696		49	0.04422402	R-squared	0.9009
					Adj R-squared	0.8929
Total	21.875		53	0.412735849	Root MSE	0.2103

H0: The model is not useful in predicting Financial performance

Ha: The model is useful in predicting financial performance

The results in the table illustrates the strength of the relationship between financial performance of food and beverages companies in Kenya and independent variables. From the determination coefficients, there is a strong relationship between dependent and independent variables given an R^2 values of 0.901 and adjusted to 0. 893. This shows that the independent variables (inventory management practices, cash management practices, accounts receivable management practices, and accounts payable management practices) explains for 90.1% of the variations in financial performance of food and beverages companies in Kenya. The 9.9% is due to the error.

Analysis of Variance (ANOVA) was used to test possible significant relationships between variables (dependent and independent variables). This helps in assessing the significance of the

regression model. The one-way analysis of variance (ANOVA) was used to determine whether there were any statistically significant differences between the means of independent (unrelated) groups. The ANOVA results presented in the table 4.14 shows that the regression model has a margin of error of $p = .000$. This indicates that the model has a probability of 0.00% of giving false prediction thus it was appropriate.

Simple regression analysis was conducted as to determine the performance of food and beverage manufacturing companies in Kenya. As per the generated table below, regression equation

$$(Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon)$$

Becomes:

$$(Y = -1.813 + 0.995X_1 + 0.944X_3 + \epsilon)$$

Table 4.15. Coefficients Table

Average Fin~e	Coef.	Std. Err.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average IMP	0.9985898	0.2466811	4.05	0.000	0.5028656	1.494314	
Average CMP	0.0152839	0.106613	0.14	0.887	-0.198963	0.229531	
Average ARP	0.9437008	0.0933874	10.11	0.000	0.7560317	1.13137	
Average APP	-0.5222206	0.2705273	-1.93	0.059	-1.065866	0.021425	
_cons	-1.81327	0.4578436	-3.96	0.000	-2.733341	-0.8932	

a. Predictors: (Constant), inventory management practices, cash management practices, accounts receivable management practices, and accounts payable management practices.

b. Dependent Variable: financial performance of food and beverages companies in Kenya

From the finding in Table 4.15, the study found that holding inventory management practices, cash management practices, accounts receivable practices, and accounts payable practices at zero; financial performance of food and beverages companies in Kenya will be -1.813. Also, a unit raise in inventory management practices, while holding (cash management practices, accounts receivable practices, and accounts payable practices) constant, will lead to a raise in financial performance of food and beverages companies in Kenya by 0.999 times ($p = 0.000$). As for cash management practices; the p value ($p = 0.887$) is more than 0.05 hence we reject the null hypothesis and conclude that cash management practice is not statistically significant in explaining financial performance. A unit raise in accounts receivable practices, while holding (inventory management practices, cash management practices and accounts payable practices) constant, will lead to a raise in financial performance of food and beverages companies in Kenya by 0.944times ($p = 0.000$).

Moreover, unit raise in accounts payable practices, while holding (inventory management practices, cash management practices, and accounts receivable practices) constant, will lead to a decrease in financial performance of food and beverages companies in Kenya by 0.522times ($p = 0.059$). This variable is not statistically significant at 95% level of confidence but significant at 90% level of confidence hence the research chose to maintain the variable. This infers that inventory management practices contribute most to the financial performance of food and beverages companies in Kenya followed by accounts receivable practices. At 5% level of significance and 95% level of confidence, inventory management practices and accounts receivable practices are significant in determining the financial performance of food and beverages companies in Kenya. At 10% level of significance and 90% level of confidence, accounts payable practices were significant in determining the financial performance of food and

beverages companies in Kenya. Cash Management practices is not statistically significant in explaining financial performance.

Since cash management practice (p=0.887)and accounts payable practices (p=0.059) are not statistically significant in explaining financial performance, the fitted model becomes:

$$(Y = -2.295 + 0.609X_1 + 0.947X_3 + \epsilon)$$

Table 4.16. Fitted Model Table

Source	SS	df	MS	Number of obs =	54	
				F(2, 51)	212.45	
Model	19.530753	3	9.7653766	Prob > F	0	
Residual	2.3442467	2	0.0459656	R-squared	0.8928	
				Adj R-squared	0.8886	
Total	21.875	5	0.4127358	Root MSE	0.2144	
		3	4			
AverageFin~ e	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
AverageIMP	0.6088915	0.0914952	6.65	0	0.4252073	0.792575
AverageARP	0.9473137	0.0947096	10	0	0.7571763	1.137451
_cons	-2.295079	0.3136948	7.32	0	-2.924848	-1.66531

a. Predictors: (Constant), inventory management practices and accounts receivable practices.

b. Dependent Variable: financial performance of food and beverages companies in Kenya

From the finding in Table 4.16, The model explained 89.28% of the variance in financial performance of food and beverage companies in Kenya. the study found that holding inventory management practices, and accounts receivable practices at zero;financial performance of food and beverages companies in Kenya will be -2.295. Also, a unit raise in inventory management

practices while holding accounts receivable practices constant, will lead to a raise in financial performance of food and beverages companies in Kenya by 60.89% ($p = 0.000$). A unit raise in accounts receivable practices, while holding inventory management practices constant, will lead to a raise in financial performance of food and beverages companies in Kenya by 94.73% ($p = 0.000$).

Van Horne and Wachowicz (2014) argue that the various elements of working capital are interrelated and can be seen as part of a cycle called the cash conversion cycle. The working capital management practices adopted by a firm determine the length of time a particular element of working capital takes in the cycle. Van Horne and Wachowicz (2014) provide that companies seek to minimize risk and improve the overall performance by understanding the role and drivers of working capital management. Consequently, a firm may adopt an aggressive working capital management policy with a low level of current assets as percentage of total assets or it may also be used for the financing decisions of the firm in the form of high level of current liabilities as percentage of total liabilities. Excessive levels of current assets may have a negative effect on the firm's profitability whereas a low level of current assets may lead to lower level of liquidity and stock-outs resulting in difficulties in maintaining smooth operations. Aminu (2012) states that working capital management is an essential tool in the success story of any firm in terms of profitability. A good or positive working capital enables a firm to access finance from short-term creditors and even long-term creditors. In the long-run, creditors seek firms with a positive working capital since it serves as an assurance of loan repayment. The issue of a positive working capital calls for working capital management which, according to Pandey (2014), is the administration of all components of working capital-cash, marketable securities, debtors (receivables) and stock (inventories) and creditors (payables).

CHAPTER FIVE

5.1. Introduction

This chapter presented summary, conclusion and recommendations on the effect of working capital management practices on the financial performance of the food and beverages manufacturing companies in Kenya.

5.2. Summary of Findings

This section presents the summary of the findings. The study sought to establish the various WCM practices adopted by food and beverage manufacturers and their effect on financial performance. The study found that in relation to inventory management practices and accounts receivable practices were statistically significant in determining the financial position of food and beverage manufacturers in Kenya. Accounts payable is not statistically significant at 5% level of significance and at 95% level of confidence. Cash management practice and account payable practices were not statistically significant in determining financial performance of food and beverage manufacturing companies in Kenya.

5.2.1. Findings for inventory management practice

Inventory management practice was found to be statistically significant in explaining the variance in financial performance. A unit raise in inventory management practices while holding accounts receivable practices constant, would lead to a raise in financial performance of food and beverages companies in Kenya by 60.89% ($p = 0.000$). The respondents agreed that the firm periodically forecasts inventory requirements (mean=4.35), followed by the company exercised stock counts periodically, the firm accounted for stock production losses, and information Technology was important in managing stocks respectively (mean=4.33), there existed a

mechanism to recycle stocks (mean=4.24), the company periodically updated the costing of stock (mean=4.19), the company scraped expired stocks (mean=4.17), the firm had installed an inventory control system (mean=4.15), the firm kept accurate inventory records, and the company revalued stocks periodically respectively (mean=4.13), the firm had a defined level of inventories for raw materials (mean=3.7), and that the firm reviewed inventory levels periodically (mean=3.19).

5.2.2. Findings for cash management practice

Cash management practice was found not to be statistically significant in explaining the variance in financial performance. The respondents agreed that the company updated prepayment schedule (mean=4.35), followed by the company had a bank overdraft facility (mean=4.2), the firm made payments on priority basis (mean=4.17), the excess cash was held for future obligations and information technology was important in managing cash respectively (mean=4.15), the firm prepared regular cash projections and the firm had a defined investment avenue for excess cash respectively (mean=3.96), the firm maintained buffer cash balance, and that the firm had a short-term finance loan with the bank respectively (mean=3.43), the firm did regular bank reconciliations (mean=3.35), and that the firm had multiple bank accounts (mean=3.15).

5.2.3. Findings for accounts receivable practice

Accounts receivable practice was found to be statistically significant in explaining the variance in financial performance. A unit raise in accounts receivable practices while holding inventory management practices constant, would lead to a raise in financial performance of food and beverages companies in Kenya by 94.73% ($p = 0.000$). The respondents agreed that credit limit was set for each customer (mean=4.44), followed by the firm gave cash discounts to encourage

early payments (mean=4.39), customers who delay payments were blacklisted and that Information Technology was important in managing debtors (mean=4.24), there existed a credit policy (mean=4.22), invoicing was prompt (mean=4.17), the firm sent overdue notices to customers (mean=4.15), customer statements were sent periodically (mean=4.13), and that bad debt levels were reviewed periodically (mean=3.41). This depicts that credit limit was set for each customer.

5.2.4. Findings for accounts payable practice

At 10% level of significance and 90% level of confidence, accounts payable practice was significant in determining the financial performance of food and beverages companies in Kenya though insignificant at 5% level of significance. The respondents agreed that the firm had set up payment policy (mean=4.37), there existed a periodic payment plan and the company renegotiated payment terms respectively (mean=4.33), the companies used letter of credit for import payments (mean=4.19), the companies paid by cash to get discounts (mean=4.17), the companies maintained accrual accounts (mean=4.15), the firms had approved contracts with suppliers and that Information Technology was important in managing payables respectively (mean=4.13), the firms reviewed level of accounts payable (mean=3.7), and that the firms paid creditors in good time (mean=3.19). This depicts that the firm had set up payment policy. Christopher (2014) asserts that the longer the accounts payables period the more advantageous for the firm as such fund can be put to other uses. However, longer accounts holding period can erode a firm's credit worthiness.

5.2.5. Findings for financial performance

Between year 2014 and 2018 the companies experienced growth in financial performance. The respondents agreed that the companies had increase in number of employees over the past 5

years (mean=4.44), followed by the companies had experienced growth on net profit over the past five years (mean=4.35), the companies market coverage had increased in the past five years (mean=4.24), the company results indicated improvement in Return on Investment (ROI) for the past five years (mean=4.22), the companies had increased the no. of customers in the past five years (mean=4.17), and that the companies had developed new products based on market change in the past five years (mean=3.41). This depicts that the companies had increase in number of employees over the past 5 years.

5.3. Conclusion of the Study

From the regression analysis, the study concluded that at 5% level of significance and 95% level of confidence, inventory management practices, and accounts receivable practices were significant on financial performance of food and beverages companies in Kenya. The inventory management practices, and accounts receivable practices have a positive effect on financial performance of food and beverage manufacturers. An increase in IMP leads to an increase in financial performance and an increase in ARP leads to an increase in financial performance of food and beverage manufacturing companies in Kenya. At 5% level of significance and 95% level of confidence MP and APP were found to be statistically insignificant in determining the performance of food and beverage manufacturing companies. Further; at 10% level of significance and 90% level of confidence, accounts payable practice was significant on financial performance of food and beverages companies in Kenya. The study concluded that the firms periodically forecasts inventory requirements, the company updates prepayment schedule, credit limit is set for each customer, and that the firm has set up payment policy.

5.4. Recommendations for the Study

This study examined effect of working capital management practices on the financial performance of the food and beverages manufacturing companies in Kenya. Inventory management practices and accounts receivable practices were found to have a positive effect on financial performance. From the practice perspective, companies should ensure that stock requirements are known in advance. This will enable companies achieve their required supplies hence increased profits. Customers need to have their credit terms well defined so as to avoid exposing companies to bad debts. The study could not recommend further on cash management practices and accounts payable practices as they were found insignificant in the study.

The study findings may greatly benefit the potential investors who want to venture into food and beverage industry in Kenya; this document shall be a great guide to them as they adopt the right working capital policy for other companies. Company management can also adopt the results to influence firm performance. Few studies have been done on food and beverages. Therefore, the study findings can be used by scholars in identifying other working capital areas, which required further research with the aim of enhancing the company's profitability as return on total assets measures. The financial institution may use the findings to advance credit to the firms or business clients (Osundina, 2014).

5.4.1. Recommendations for inventory management practices

Since inventory management practice was found to be statistically significant in explaining the variance in financial performance; companies are encouraged to put in to practice several practices which include: periodical inventory forecasts and stock counts, accounting for production losses, use of information Technology, recycling and costing of stocks, scraping of

expired stocks, inventory control systems, keeping accurate inventory records, periodic revaluation of stocks. These practices have a positive significant effect on financial performance.

5.4.2. Recommendations for cash management practices

Cash management practice was found not to be statistically significant in explaining the variance in financial performance. This limited the study not to give recommendations.

5.4.3. Recommendations for accounts receivable practices

Accounts receivable practice was found to be statistically significant in determining the financial performance of food and beverage manufacturing companies in Kenya. Several practices for accounts receivable need to be used by companies which include: setting of credit limit for each customer, use of cash discounts to encourage early payments, blacklisting of non-paying customers, use of Information Technology in managing debtors, use of credit policy, prompt invoicing, sending of overdue notices to customers, periodic sending of customer statements and periodic review of bad debt levels. This depicts that credit limit is set for each customer. These methods lead to increase in profitability by reducing the debtors' collection period. The key to successful cash and debt management lies in tabulating realistic projections, monitoring collections and disbursements, establishing effective billing and collection measures, and adhering to budgetary parameters because cash flow can be a problem to the business organization.

5.4.4. Recommendations for accounts payable practices

Accounts payable practice was found not to be statistically significant in explaining the variance in financial performance. This limited the study not to give recommendations.

5.5. Limitations of the Study

The study only concentrated on the working capital management practices of food and beverages manufacturing companies in Kenya and not all the companies in the economy. These results are therefore only limited to the manufacturing companies and may be of little or no use to the companies in other sectors in the country.

Due to the self-report nature of data which entailed the use of questionnaires, responses on the survey may not accurately convey their real involvement in the working capital management practices. Some of the respondent did not return the questionnaires therefore, resulting to lesser the targeted sample thus, influencing the nature of statistical reporting. Further; the study relied on primary data which makes it hard to verify unlike secondary data.

Finally, due to limited time available to carry out the research, various areas of working capital management practice were not comprehensively studied to provide a national wide picture. This would be an important area because policy makers and implementers argue that the effects of working capital management practices on financial performance of food and beverage manufacturing companies in Kenya can only be resolved by providing them with research action points based on empirical data.

5.6. Suggestions for Further Research

Research should be carried out that also includes those companies in other sectors to establish if they also consider the working capital management practices as important and to establish the frequency of usage of the practices. Further research is important in other countries with similar or almost same micro and macroeconomic environments for manufacturing companies. The findings of would enhance a cross-country comparison of the working capital management practices and their impact on financial performance. In addition, future studies should examine

specific factors as to why food and beverage manufacturing companies are not adopting newly developed working capital management tools. The relatively limited benefits associated with new working capital management techniques raises the question of the conditions necessary to effectively implement these tools.

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APPENDIX 1: Questionnaire

PART - A

Background Information

1. What is your position in the firm?
Financial manager Financial accountant
2. Gender of the respondents?
Male Female
3. Age in years?
25 to 29 years 30 to 34 years
35 to 39 years 40 to 44 years
45 to 49 years More than 50 years
4. How long have you worked in the firm?
Less than 1 year
2 to 5 years
5 to 10 years
More than 10 years
5. When did your company commence its operations?
1-10 Years ago ()
11-20 Years ago ()
21-30 Years ago ()
31- 40 Years ago ()
41-50 Years ago ()
Over 50 Years ago ()
6. What is the length of time your company has been a member of Kenya Association of Manufacturers?
1-5 Years ()
6-10 Years ()
11-15 Years ()
16-20 Years ()
21-25 Years ()

Over 25 Years ()

7. What is your organizational form?

Listed Company ()

Other limited companies ()

Partnership ()

Sole Proprietorship ()

Co-operative Society ()

Other, please specify

8. How many workers are currently employed by your company employed?

Between 1 and 10 workers ()

Between 11 and 50 workers ()

Between 51 and 100 workers ()

Between 101 and 250 workers ()

Between 251 and 500 workers ()

Over 500 workers ()

9. What types of products does your company deal with?

Bakers and Millers ()

Confectioneries ()

Drinks ()

Dairy & Meat products ()

Others ()

10. What formal organization structure does your company have?

Simple form ()

Functional ()

Divisional ()

Matrix () other, please

specify.....

Part B

Inventory Control Practices

For the following questions you are requested to indicate whether you Agree (A), Disagree (D), Strongly Agree (SA), Strongly Disagree (SD) or Neutral about inventory control practices in your firm (N)

STATEMENT	SD	D	N	A	SA
1. The firm has a defined level of inventories for raw 2. Materials					
3. The firm reviews inventory levels periodically					
4. The firm keeps accurate inventory records					
5. The firm has installed an inventory control system					
6. The company exercises stock counts periodically					
7. The company periodically updates the costing of stock					
8. The company scraps expired stocks					
9. The company revalues stocks periodically					
10. The firm accounts for stock production losses					
11. There exists mechanism to recycle stocks					
12. The firm periodically forecasts inventory requirements					
13. Information Technology is important in managing stocks					

Part C

Cash Management

- a. For the following questions you are requested to indicate whether you Agree (A), Disagree (D), Strongly Agree (SA), Strongly Disagree (SD) or Neutral about cash management (N)

STATEMENT	SD	D	N	A	SA
1. The firm prepares regular cash projections					
2. The firm makes payments on priority basis					
3. The firm does regular bank reconciliations					
4. The firm has a defined investment avenue for excess cash					
5. The firm maintains buffer cash balance					
6. The company has a bank overdraft facility					
7. The firm has a short-term finance loan with the bank					
8. The firm has multiple bank accounts					
9. The excess cash is held for future obligations					
10. Information Technology is important in managing cash					
11. The company updates prepayment schedules					

Part D

Accounts Receivable

- a. What are your accounts receivable payment policy?
- b. For the following statements you are requested to indicate whether you Agree (A), Disagree (D), Strongly Agree (SA), Strongly Disagree (SD) or Neutral (N) about accounts payable practices in your firm

STATEMENT	SD	D	N	A	SA
1. There exists a credit policy					
2. Credit limit is set for each customer					
3. Invoicing is prompt					
4. Customers who delay payments are blacklisted					
5. Bad debt levels are reviewed periodically					
6. Customer statements are sent periodically					
7. The firm sends overdue notices to customers					
8. The firm gives cash discounts to encourage early payments					
9. Information Technology is important in managing debtors					

Part E

Accounts Payable Practices

- a. What are your accounts payable payment policy?

- b. For the following statements you are requested to indicate whether you Agree (A), Disagree (D), Strongly Agree (SA), Strongly Disagree (SD) or Neutral (N) about accounts payable practices in your firm

STATEMENT	SD	D	N	A	SA
1. The firm has set up payment policy					
2. The firm reviews level of accounts payable					
3. The firm pays creditors in good time					
4. The firm has approved contracts with suppliers					
5. The company maintains accrual accounts					
6. There exists a periodic payment plan					
7. The company uses letter of credit for import payments					
8. The company pays by cash to get discounts					
9. Information Technology is important in managing payables					
10. The company renegotiates payment terms					

Part F

Financial Performance

How has the company financially performed in the last five years?

For the following statements you are requested to indicate whether you Agree (A), Disagree (D), Strongly Agree (SA), Strongly Disagree (SD) or Neutral (N)

STATEMENT	SD	D	N	A	SA
The company has experienced growth on net profit over the past five years					
The company results indicate Improvement in Return on Investment (ROI) for the past five years					
The company has increase in no. of employees over the past 5 years					
The company has increased the no. of customers in the past five years					
The company market coverage has increased in the past five years					
The company has developed new products based on market change in the past five years					

APPENDIX 2: List of Companies

1. Bdelo Ltd
2. Elekea Limited
3. Shree Sai Industries
4. Confini Limited
5. Zeelandia East Africa Limited
6. Victory Farms Limited
7. Trisquare Products Ltd
8. Kwale International Sugar Company Limited
9. Blueplastics and Water Co. Limited
10. Italian Gelati & Food Products Ltd
11. Capel Food Ingredients
12. C.Czarnikow Sugar (EA) ltd
13. Europack Industries Limited
14. Bakers Corner Ltd
15. Candy Kenya Ltd
16. Nairobi Java House Ltd
17. Belfast Millers Ltd
18. Afrimac Nut Company
19. Re-Suns Spices Limited
20. Alpine Coolers Ltd
21. Razco Limited
22. Kirinyaga Flour Mills

23. Sunny Processors Ltd
24. Salim Wazarani Kenya Company
25. Eastern Produce Kenya Ltd (Kakuzi)
26. Gonas Best Ltd
27. Spice World Ltd
28. Kamili Packers Ltd
29. Tropical Heat Limited (Formerly Deepa Industries)
30. Nairobi Flour Mills Ltd
31. The East African Seed Co. Ltd
32. Patco Industries Limited
33. Breakfast Cereal Company (K) Ltd (Formerly Weetabix)
34. Almasi Beverages Limited
35. Premier Food Industries Limited
36. Bio Food Products Limited
37. SBC Kenya Limited
38. Kenya Highland Seed Co. Ltd
39. Farmers Choice Ltd
40. Excel Chemicals Ltd
41. East African Sea Food Ltd
42. Kenafric Industries Limited
43. Trufoods Ltd
44. Manji Food Industries Ltd
45. Glacier Products Ltd

46. Kenya Sweets Ltd
47. Frigoken Ltd
48. Unga Group Ltd
49. Rafiki Millers Ltd
50. Kevian Kenya Ltd
51. Giloil Company Limited
52. Mini Bakeries (Nbi) Ltd
53. Kenchic Ltd
54. Kenya Tea Development Agency
55. DPL Festive Ltd
56. C. Dormans Ltd
57. Kenya Wine Agencies Limited
58. Githunguri Dairy Farmers Co-operative Society
59. Nestle Kenya Ltd
60. Sameer Agriculture & Livestock (Kenya) LTD
61. Nairobi Bottlers Ltd
62. Pembe Flour Mills Ltd
63. British American Tobacco Kenya Plc
64. Coca-Cola East Central and West Africa Ltd
65. East African Breweries Ltd