

**THE EFFECT OF WORKING CAPITAL MANAGEMENT
PRACTICES ON THE FINANCIAL PERFORMANCE OF SMALL
AND MEDIUM ENTERPRISES IN KENYA**

BY:

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DECLARATION

This research project is the original work of the author and has not been presented for a degree in any other university.

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DEDICATION

This research project is dedicated to my loving parents who have worked tirelessly to make sure I get quality education.

ABSTRACT

Working capital management plays a significant role in better performance of business entities. This paper analyses whether SMEs in Kenya carry out working capital management and the effect of Working Capital Management (WCM) on the financial performance of SME's in Kenya.

The study employed a quantitative research design which was useful in establishing the relationship of working capital management and financial performance. In addition, the study employed a cross sectional survey to establish whether SMEs in Kenya carry out WCM practices. A sample of 100 SMEs for a period of two years, 2009 and 2010 was used. However, a total of 89 responses were received. The study relied on both primary data, collected through a questionnaire, and secondary data collected from annual reports and financial statements of SMEs in Kenya. The WCM components used for the purpose of this study were, Accounts Payable Period (APP), Inventory Conversion Period (ICP) and Average Collection Period (ACP). Return on Assets (ROA) was used as the proxy for financial performance. The study employed a regression analysis and the Pearsons' correlation analysis was used to test the significance of relationship between WCM and financial performance of SMEs in Kenya.

The results of the study indicate that 62.9% of the SME's in Kenya do not have a written policy on WCM. However, they are informally adopting some of the WCM practices. The results further indicated there is a significant positive relationship between WCM components (APP, ACP and ICP) and financial performance of SMEs in Kenya, at 0.05 significance level. A positive correlation coefficient of 0.833 was established between ROA and the ACP indicating a significant positive relationship between ACP and ROA. A positive correlation coefficient of 0.869 was also established between ROA and ICP indicating a significant positive relationship between ROA and ACP. Finally a positive correlation coefficient was established between ROA and APP indicating a significant positive relationship between ROA and APP.

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List of Abbreviations

ACP:	Average Collection Period
APP:	Average Payable Period
CCC:	Cash Conversion Cycle
ECU:	European Currency Unit
EU:	European Union
ICP:	Inventory Conversion Period
IFC:	International Finance Corporation
GDP:	Gross Domestic Product
ROA:	Return on Assets
ROE:	Return on Equity
SMEs:	Small and Medium Enterprises
SSC:	SMEs Solution Center
UK:	United Kingdom
USA:	United States of America
WCM:	Working Capital Management

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Working capital management (henceforth, WCM) is a highly essential component in the management of daily activities of the firms. The continuous challenging economic and financial market environment has caused companies around the world to intensify efforts to extract efficiencies and eliminate risks in the management of their working capital. Consequently, WCM enables firms to be at par with maintaining an optimal performance in liquidity and performance. A conventional view is that there are likelihoods of disparities of firm's assets as well as liabilities if WCM is inefficient and mismanaged.

Firms are now taking a more strategic approach to WCM which helps in bringing about benefits beyond greater liquidity and reduced debt burdens. WCM also provides flexibility for growth, investment and increasing shareholder wealth through dividends. Managing working capital effectively and consistently prepares firms for any downturn without being forced into a crippling scramble for liquidity.

1.1.1 Working Capital Management

WCM involves planning and controlling current assets and liabilities in a manner that eliminates the risk of inability to meet short term obligations and avoid excessive investment in these assets (Eljelly, 2004). WCM aims at maintaining an optimal balance between each of the working capital components, that is, cash, receivables, inventory and payables (Guthmann and Dougall, 1948). The goal of WCM therefore, is to ensure that the firm is able to continue in its operations and that it has sufficient cash flow to satisfy

both maturing short-term debt and upcoming operational expenses (Brigham & Houston, 2007).

WCM is therefore a fundamental part of any firm's overall corporate strategy to create value, to ensure financial health and provide competitive advantage (Deloof, 2003). WCM is also vital for the success and survival of businesses and for enhanced performance and contribution to economic growth (Padachi, 2006). In this sense, it is possible to regard working capital as the lifeblood of a firm (Padachi et al. 2008). The goal of WCM therefore, is to ensure that the firm is able to continue in its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses (Brigham and Houston, 2007).

1.1.2 Financial Performance

According to Metcalf and Titard (1976), financial performance is the process of measuring the results of a firm's policies and operations in monetary terms. Financial performance of a firm can be measured using variables such as profitability and liquidity. Profitability measures the extent to which a business generates a profit from the factors of production. Four useful measures of firms' profitability are Return on Assets (ROA), Return on Equity (ROE), Operating profit Margin and Net Income. Liquidity on the other hand, measures the ability of the firm to meet financial obligations as they fall due, without disrupting the owner equity, using the market value of assets. Liquidity can be measured using the current ratio which is the ratio of current assets to current liabilities.

1.1.3 Relationship between WCM and Financial Performance

WCM has significant impact on both profitability and liquidity of firms (Shin and Soenen, 1998). In regards to liquidity, WCM seeks to ensure that the investment in working capital components is neither too little nor too great. The former could give rise to illiquidity, stock outs, and lost sales, whereas the latter amounts to waste (Tully, 1994). With regards to profitability, the level of investment in working capital and the financing of this investment, at any particular level of output, involve a risk-return tradeoff (Madura and Veit, 1988). Generally the higher the risk the higher the return demanded by management and shareholders in order to finance any investment in working capital (Cooper et al. 1998, Gitman, 1997).

Therefore, for WCM to be effective there is need for clear specification of any firm's objectives. According to the mainstream economic theory, it is generally accepted that the main objective of any firm is to maximize profits. However, maintaining liquidity is also an important objective (Raheman & Nasr, 2007). The dilemma is that increasing profits at the cost of liquidity can bring grave problems to the firm. Therefore, there must be a tradeoff between these two objectives (liquidity and profitability) of firms (Falope and Ajilore, 2009). This can be achieved through effective WCM since the two main objectives of WCM are; to increase the profitability of a company and to ensure that it has sufficient liquidity to meet short-term obligations as they fall due and so continue in business (Padachi, 2006).

Ultimately, WCM is a very crucial element in analyzing the firm's performance whilst performing day to day operations and achieving balance between liquidity and

profitability. All individual components of working capital including cash, marketable securities, account receivables and inventory management play a vital role in the performance of any firm (Brigham & Houston, 2007).

1.1.4 SME's in Kenya

Although WCM is the concern of all firms, it is of explicit importance to the Small Medium-sized Enterprises (SMEs) given the vulnerability of small firms to fluctuations in working capital since they cannot afford to starve of cash (Padachi, 2006). The SME Solutions Center (SSC, 2007) defines SME as a business formally registered, with an annual turnover of between Ksh. 8 million to Ksh. 100 million, an asset base of at least Ksh. 4 million and 5 to 150 employees.

With limited access to the long-term capital markets, SMEs tend to rely more heavily on owner financing, trade credit and short-term bank loans to finance their needed investment in cash, accounts receivable and inventory (Chittenden et al. 1998; Sacurato, 1994). These sources of finance bare more risk and are more expensive as compared to equity making WCM an important financial management aspect in SMEs. Kwame (2007) noted that indeed WCM is important to the SMEs' managers, because it is them who strive for finances and the opportunity cost of finances, for them is usually on the higher side.

In Kenya, SMEs play an important role in the Economy. According to the Economic Survey (2006), the sector contributed over 50 percent of new jobs created in the year 2005. In addition, Oketch (2000) noted that SMEs in Kenya contributed significantly to economic development through provision of job opportunities, reduction of poverty levels, nurturing

the culture of entrepreneurship and providing a vital link in the economy through their supply chain and intermediary role in trade. However, despite their significance, past statistics indicate that three out of five businesses fail within the first few months of operation (Kenya National Bureau of Statistics, 2007). Fina Bank Report (2007) further highlights that SMEs exhibit both high birthrates and high death rates with 40% of the startups failing by year two and at least 60% failing by year four.

Mead (1998) observed that the health of the economy as a whole has a strong relationship with the health and nature of SMEs. Further, given SMEs importance to a nation's economic growth and the critical role that they play in poverty reduction, an understanding of the problems that negatively affect SMEs in Kenya is a fundamental step in managing and avoiding the enormous failure of these SMEs (ILO, 2010). Based on this background, this study is designed to establish the impact of Working Capital Management practices on the financial performance of SMEs in Kenya.

1.2 Research Problem

Efficient management of working capital is an important indicator of sound health of an organization. A firm should therefore formulate certain policies to control the working capital so as to meet financial distress, which may occur in future (Luther, 2007). In addition, being a part of investment in assets and directly affecting the financial performance of firms, WCM is a vital issue in the financial decision making process. It ensures adequate cash flow for business operation and expansion which in turn ensures that a firm has positive working capital and hence able to meet its short term obligations as and when they fall due (Joshi, 1994). However, Smith (1980) noted that WCM

practices appear to have been neglected despite the high proportion of business failure being attributed to poor decisions regarding working capital.

SMEs pose as the efficient motor of every market economy. For example, in Europe 99.8 per cent of all businesses fall into the SME category. In addition, roughly 66 per cent of all workers are employed in this corporate size (Pichler, 1996). However, the failure rate among small businesses is very high compared to that of large businesses. Padachi (2006) noted that above 20% of small firm failures in the United Kingdom (UK) was due to irrecoverable debts or poor receivable management. Additional studies in the UK and the United States of America (USA) have shown that weak WCM and inadequate long-term financing, is a primary cause of failure among small businesses (Dunn and Cheatham, 1993). In other developed countries such as Canada, England, Australia and others, it has long been recognized that efficient management of working capital is crucial for prosperity and survival of small businesses (Deloof, 2003).

In Kenya, several studies have been carried out to establish the impact of WCM on the financial performance of firms. However, there have been contradicting findings by the different researchers. Mathuva (2010) carried out a study on the impact of WCM on the financial performance of firms in Kenya with a focus on 30 firms listed on the Nairobi stock Exchange. He established that there was differing impact of each WCM components on the financial performance of firms with some having a positive impact and others having a negative impact. On the other hand, Gakure, et al. (2012) carried out a similar study with a sample of 18 companies listed on the Nairobi stock exchange. They

established that there was a strong negative impact of all WCM components on the financial performance of firms.

The studies specific to SMEs in Kenya also have contradictory findings. For instance, Kithii, (2008) established that there was a significant negative relationship between the components of WCM with the financial performance of SMEs in Kisumu City. On the other hand, Nyambaga, et al. (2012) established that there was a positive relationship between WCM components and the financial performance of SMEs in Kisii South District.

Given the; importance of WCM especially to small firms, the significance of the SME sector to the economy of developing countries and the contradictory findings of the various studies carried out in this area, it is important to get a clear understanding of the effect that WCM has on the financial performance of SMEs in Kenya. This study therefore, sought to answer the questions:

What are the working capital management practices in the SME sector in Kenya?

What is the effect of working capital management practices on the financial performance of SMEs?

1.3 Objectives of this Study

The broad objective of this study was to establish the impact of working capital management practices on the financial performance of the SMEs in Kenya. The specific objectives of the study were:

1. To establish the working capital management practices in the SME sector in Kenya.
2. To establish the effect of working capital management practices and the financial performance of SMEs in Kenya.

1.4 Value of the Study

The findings of this study will be of benefit to:

Lending institutions: Sources of funds are a component of working capital. The findings of this study will assist the management of financial institutions to understand some of the WCM practices in the SME's sector which will then guide their lending financing decisions to the SMEs.

Regulator: The SME's in Kenya are registered under the Ministry of Trade and Industrialization. The findings of this study will benefit the Ministry by providing insights to the kind of regulations they should have in place in regards to SME's and advice on whether there is need to revise the already existing Laws and Regulations.

Scholars and Researchers: This research will add to the existing field of knowledge of working capital management and provide scholars with the necessary literature review to carry out further research.

CHAPTER TWO:LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the literature which is related to and consistent with the objectives of the study. The literature covered the theoretical review, determinants of financial performance the measurement of WCM and financial performance and an empirical review of past studies. It then gave a summary of the literature review identifying the gap.

2.2 Theoretical Review

This section discussed the theoretical underpinnings in relation to the components of WCM. Historically, WCM has passed through different management phases, i.e. the systematic approach of control, optimality management phase and value measurement phase.

2.2.1 Systematic Approach of Control

According to Scherr (1989), WCM originally started as a systematic approach also known as the traditional approach of controlling the incoming, outgoing and remaining balances of cash, receivables and inventories. The main objective was to ensure working capital is not misappropriated for personal benefits of those who are entrusted with its management. Practitioners therefore developed various control measures over the receipts and collections of cash, receipts and issuance of inventories as well as the increase of receivables through credit sales and decrease of receivables through cash collection.

2.2.2 Optimality Management Phase

Scherr (1989) states that the change in the business situation in the mid-1950, made the traditional approach to outlive its usefulness. The increase in market, the population growth, the management efficiency and future, during and after the mid-1950s necessitated efficient and effective utilization of the firm's resources. Therefore, under the optimality management phase, the main focus was not only on the physical safety of working capital items but also on the minimisation of related costs and maximisation of related income. At this stage particular models (e.g. Baumol (1952), miller-Orr (1966), Economic Order quantity (EOQ) (1934) and Just-In-Time (JIT) (1922) among others) were developed to ensure that firms do not get problems due to a lack of liquidity or incur too much cost by holding excesses of working capital levels. This approach also included the profit planning function. The term profit planning refers to operating decisions in the area of pricing, volume of output and the firm's selection of productive assets.

2.2.3 Value Measurement Phase

Under this approach, WCM involved helping managers in the creation and measurement of value without disregarding the above (control and optimization) objectives. Thus, in addition to funds, financial manager is directly concerned with production, marketing and other enterprises activities whenever decisions are made about the acquisition or distribution of assets. Particularly, the cash flows approach is used as a main tool to measure the value created by firms (Scherr, 1989).

2.3 Measurement of Variables

The choice of the variables in this study is influenced by the previous studies on WCM. The independent variable in this study is WCM which will be measured using the WCM components including, receivables management, inventory management, payables management and cash management. Financial performance of a firm being the dependent variable will be measured using variables such as profitability ratios and liquidity ratios. The profitability ratio to be applied in this study is the Return on Assets (RAO). The liquidity ratio to be applied in this study, as a control variable is the current ratio.

2.3.1 Measurement of Working Capital Management Components

Efficient receivables management involves a shortened creditor's collection period, low levels of bad debts and a sound credit policy which often improves the businesses' ability to attract new customers and accordingly increase financial performance (Ross et al., 2008). This was further affirmed by a study by Sushma and Bhupesh (2007), which stated that putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms. The standard measure of receivables management is the Average Collection Period (ACP) which is the time taken to collect cash from customers (Mathuva, 2009). ACP is calculated as average accounts receivable divided by credit sales multiplied by 365 days.

Efficient inventory management practices involve knowing how much should be ordered and when should it be ordered. This relates to determining the economic order quantity and analysis of the costs of maintaining certain levels of inventory (Ross et al. 2008). The costs involved in inventory management are those of holding too much stock and those of

holding too little, hence the need to put in place an effective inventory management system to ensure reliable sales forecasts to be used in inventory ordering purposes (Atrill, 2006). Maintaining optimal inventory levels reduces the cost of possible interruptions or of loss of business due to the scarcity of products, reduces supply costs and protects against price fluctuations (Nyabwaga et al. 2012). The time taken to convert inventory held into sales is known as ICP and is used as a proxy for inventory management policy (Deloof, 2003). ICP is calculated as inventory divided by cost of sales multiplied by 365 days.

According to Ayiro (2012), creditors are a vital part of effective cash management and should be managed carefully to enhance cash position of a business. Management of creditors and suppliers is very important as slow payment by a firm may create ill-feeling and can signal that the business is not doing well. This was further affirmed by Raheman and Nasr (2007), who indicated that delaying payment of accounts payable to suppliers allows firms to access the quality of obtaining products and can be inexpensive and flexible source of financing. On the other hand, delaying of such payables can be expensive if a firm is offered a discount for the early payment. By the same token, uncollected accounts receivables can lead to cash inflow problems for the firm. According to Deloof (2003), the time taken to pay suppliers is the APP which is used as a proxy for accounts payable management policy. APP is calculated as average accounts payable divided by credit purchases multiplied 365 days.

Cash management is the process of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a

point in time (Pandey, 2004). Efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little (Ross et al. 2008) and as stressed by Atrill (2006), there is need for careful planning and monitoring of cash flows over time so as to determine the optimal cash to hold. One of the standard measures of cash management is the CCC that was introduced by Richards and Laughlin (1980). It refers to time-period from buying raw material, converting to finished goods, sales products, and collecting account receivables (Mansoori and Muhammad, 2012). CCC is calculated as $ACP + ICP - APP$.

2.3.2 Measurement of Financial Performance

The ROA profitability ratio will be used in this study to measure financial performance. According to Padachi (2006), SMEs are characterized by a low fixed assets base and rely to a large extent on accounts payable to fund its gross working capital. Thus a comprehensive measure of profitability is best captured by computing the return on total assets which is equal to the total liabilities of the firms, made up mainly of equity capital and current liabilities. ROA is the ratio of Earnings before Interest and Taxes to Total Assets.

The Current Ratio which will be applied as a control variable is the ration of current assets to current liabilities.

2.4 Determinants of Financial Performance

It is important to maintain a balance between profitability and the liquidity of a firm in order to have healthy financial performance. One objective should not be achieved at the cost of the other because both have their own importance (Zariyawati et al, 2009). If firms do not care about profit, they cannot survive for a longer period. In other round, if firms do not care about liquidity, they may face the problem of insolvency or bankruptcy. For these reasons managers of firms should give proper consideration for WCM as it does ultimately affect the profitability of firms (Eljelly, 2004).

Padachi (2006), states that a firm can be very profitable but if this is not translated into cash from operations within the same operating cycle, the firm would need to borrow to support its continued working capital needs. Investments in current assets are inevitable to ensure delivery of goods or services to the ultimate customers and a proper management of the same should give the desired impact on either profitability or liquidity. If resources are blocked at the different stage of the supply chain, this will prolong the cash operating cycle. Although this might increase profitability (due to increase sales), it may also adversely affect the profitability if the costs tied up in working capital exceed the benefits of holding more inventories and/or granting more trade credit to customers.

The management of working capital is important to the financial health of businesses of all sizes. The amounts invested in working capital are often high in proportion to the total assets employed and so it is vital that these amounts are used in an efficient and effective way. For small companies, current liabilities are the principal source of external

financing. These firms do not have access to the longer-term capital markets, other than to acquire a mortgage on a building. While the performance levels of small businesses have traditionally been attributed to general managerial factors such as manufacturing, marketing and operations, working capital management may have a consequent impact on small business survival and growth (Kargar and Blumenthal, 1994). This was further emphasized by De Chazal Du Mee (1998) whose study revealed that 60% of small enterprises suffer from cash flow problems hence experience liquidity problem. He suggested that for the small enterprises to enhance their level of performance, they should adopt formal working capital management.

Working capital management also assists the organization in meeting its short-term financial requirements. It is a trading capital, not retained in the business in a particular form for longer than a year. The money invested in it changes form and substance during the normal course of business operations. Working capital starvation is generally credited as a major cause if not the major cause of small business failure in many developed and developing countries (Rafuse, 1996). The success of a firm depends ultimately, on its ability to generate cash receipts in excess of disbursements. Poor financial management exacerbates the cash flow problems of many small businesses and in particular the lack of planning cash requirements (Jarvis et al, 1996).

2.5 Empirical studies

Deloof (2003) using a sample of 1,009 large Belgian non-financial firms for a period of 1992-1996 found significant negative relationship between gross operating income and the number of days accounts receivable, inventories, and accounts payable of Belgian

firms. Based on the study results, he suggests that managers can increase corporate profitability by reducing the number of day's accounts receivable and inventories.

Eljelly (2004) tested the relationship between profitability and WCM measures for 27 Saudi companies, from three non-financial sectors, over the period 1996-2000. The independent variables used in the regression models as measures of liquidity were the current ratio and the Cash Conversion Cycle (CCC). Size was included as a control variable. The dependent variable was measured using net operating income before depreciation deflated by sales. The overall results showed that WCM measures are significant and have negative relationship with profitability, and the importance of those measures differ across industries.

Padachi (2006) examined the trends in WCM and its impact on firms' performance. The trend in working capital needs and profitability of firms were examined to identify the causes for any significant differences between the industries. The dependent variable, return on total assets was used as a measure of profitability and the relation between WCM and corporate profitability was investigated for a sample of 58 small manufacturing firms, using panel data analysis for the period 1998 – 2003. The regression results showed that high investment in inventories and receivables is associated with lower profitability.

Falope and Ajilore (2009) using a sample of 50 Nigerian quoted non-financial firms for the period 1996 -2005, found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on

the Nigerian Stock Exchange. Furthermore, they found no significant variations in the effects of working capital management between large and small firms.

Further, Raheman and Nasr (2007) established a significant and negative relationship between profitability and all WCM components based on a study of ninety four listed firms in Pakistan.

Kithii (2008) examined the empirical relationship between WCM and firm's profitability. The study used secondary data obtained from annual reports and financial statements of companies listed on the Nairobi Stock Exchange (NSE). The study used a sample of 24 companies listed on the (NSE) for a period of six (6) years from 2001 – 2006. Pearson's correlation and regression analysis (pooled least squares) were used for analysis. The results showed that there is a statistical significant negative relationship between variables of WCM and the profitability of firms except for the average payment period which showed a positive relationship.

Mathuva (2010) examined the influence of working capital management components on corporate profitability by using a sample of 30 firms listed on the Nairobi Stock Exchange (NSE) for the periods 1993 to 2008. The key findings of his study were that: i) there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers (accounts collection period) and profitability, ii) there exists a highly significant positive relationship between the period taken to convert inventories into sales (the inventory conversion period) and profitability, and iii) there exists a highly significant positive relationship between the time it takes the firm to pay its creditors (average payment period) and profitability.

Khan et al (2011) carried out a study to investigate the hypothesis that working capital management has effect on profitability and there exist a trade-off between risk and return. They used a sample of 92 Pakistani firms from textile sector for the period 2001 to 2008. Descriptive Statistics, Correlation and Regression Analysis were used for investigation. The findings of the study concluded that there exist a moderate risk-return trade off in between profitability and liquidity hypothesis. Moreover working capital management has significant impact on profitability regarding to textile sector of Pakistan. Further there exists a positive relationship between size and profitability. This study was limited to the textile industry with a sample of 92 companies, which may not be fully generalized to the entire economy of Pakistan.

Nyabwaga et al., (2012) examined the impact of WCM on the financial performance of SME's in Kenya. The study adopted a cross-sectional survey research design which allowed the collection of primary quantitative data through structured questionnaires. The target population was 159 managers of 101 trading and 58 manufacturing SSEs. Stratified random sampling technique was used to obtain a sample of 113 SSEs comprising 72 trading and 41 manufacturing enterprises. The data was analyzed using both descriptive and inferential statistics. Consequently, the findings of the study were that, working capital management practices were low amongst SSEs as majority had not adopted formal working capital management routines and their financial performance was on a low average. The study also revealed that SSE financial performance was positively related to efficiency of cash management (ECM), efficiency of receivables management (ERM) and efficiency of inventory management (EIM) at 0.01 significance level.

Gakure et al. (2012) examined the relationship between WCM and performance of manufacturing firms listed at the Nairobi Securities Exchange (NSE). The study used secondary data from a sample of 18 companies at the NSE. A regression model was determined to establish the relationship between the dependent variable and the independent variables. Pearson's correlation and regression analysis were used for the analysis. The results indicated that there is a strong negative relationship between firm's performance and liquidity of the firm.

2.6 Summary of Literature Review

The empirical studies show that WCM has an impact on the financial performance of firms and is of particular importance to small firms. However, the researchers defer on the kind of impact that WCM has on financial performance of firms. Some researchers (Nyabwaga et. al. 2012) have found a positive relationship while others have found a negative relationship (Deloof 2003; Eljelly 2004; Falope and Ajilore 2009). For other researchers (Mathuva 2009), different components of WCM have different impact on the financial performance of firms. Therefore this study attempted to cover the gap which exists in defining the kind of relationship between WCM and financial performance of firms. The study therefore concentrated on SMEs in Kenya since only a few studies have been carried out in regards to the effect of WCM on the financial performance of SMEs in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section discussed the research design, target population and sample size & techniques, data collection methods and data analysis methods.

3.2 Research Design

This study employed a quantitative approach. This approach involves collecting and analyzing numerical data. It is a highly detailed and structured approach which allows results to be collated and presented statistically. This research applied the quantitative approach because it will enable the researcher to test the significance of the relationship between WCM and financial performance of SMEs in Kenya. The researcher also used a cross-sectional survey designed to establish whether SMEs in Kenya carry out working capital management practices. This is because surveys will allow for results to be aggregated and generalised back to the larger population.

3.3 Population

The target population for this study was 1.6 Million registered SMEs located in Kenya. This was based on the Ministry of trade and industry database which states that there is an estimated 1.6 Million SMEs in Kenya representing 96% of all formally registered private enterprises in different industries and sectors.

3.4 Sample

A sample of 100 companies was used. The sample was collected from the Ministry of Trade and Industry database. This sample was selected using stratified random sampling technique. The population was segregated into several mutually exclusive subpopulations (strata) as per the different sectors in the Kenyan economy. These sectors include manufacturing, general trade, agriculture and service. 25 companies were picked in random from each stratum to make a total of 100 companies. This technique reduced biasness and allowed for representation of all business categories of SMEs in Kenya.

3.5 Data Collection Methods

This study heavily relied on both secondary data and primary data. Secondary data included; the amount of debtors, amount of creditors, amount of inventory and amount of cash which will be useful in calculating the ACP, APP and ICP respectively. Further, the Earnings before Interest and Taxes, the amount of total assets was collected to calculate the ROA. Secondary data was collected from the annual reports and audited financial statements of SMEs in Kenya. This data was believed to be authentic given annual reports are audited giving the financial information presented in them credible. In addition to the secondary data, self-administered questionnaires were used to collect primary data on the WCM practices carried out by SMEs in Kenya. This is because questionnaires reduce researcher bias, they are cost effective, easy to analyse and less intrusive. The study covered the period between 2009 and 2010.

3.5.1 Reliability and Validity

To increase the validity and reliability of the data collected using questionnaires, the researcher based the questions solely on the objectives of the research. In addition, the researcher ensured that the questions were not leading and that they were both open and closed ended. The questionnaire design and questions were then reviewed by peers and supervisors who offered objective suggestions on areas to improve on.

3.6 Data Analysis

A Multiple Regression analysis was employed in the study to explore the combined effect of the variables of WCM on the financial performance of SMEs. The Regression Equation for the sample was:

$$ROA_{ot} = \beta_0 + \beta_1 (ACP_{ot}) + \beta_2 (ICP_{ot}) + \beta_3 (APP_{ot}) + \varepsilon$$

Where:

- ROA_{ot} = Return on Assets of firm o at time t ; $o = 1, 2$,
- β_0 = The intercept of equation
- t = Time = 1,2,3, ..., Years
- ACP = Average Collection Period
- ICP = Inventory Conversion Period
- APP = Average Payable Period
- ε = The Error Term

Pearson's Correlation analysis was performed on the variables used to assess the significance of the effect of WCM on financial performance. This was done for each of the independent variables (ACP, ICP, APP) in relation to the dependent variable (ROA).

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis of study findings of the e impact of WCM practices on the financial performance of the SMEs based on the following research questions: What are the WCM practices in the SME sector and what is the impact of working capital management practices on the financial performance of SMEs in Kenya? This chapter analyses the variables involved in the study and estimates of the model presented in the previous chapter.

4.2 Data Presentation

The data used in this study was obtained from the annual financial statements for a selected sample of 89 registered SMEs in Kenya for the period between 2009 and 2010. This was out of an initial target sample of 100 registered SMEs in Kenya. The collected data was analyzed and interpreted with the help of different statistical tools including financial ratios, regression analysis and Pearson's correlation analysis. For the purpose of this study, financial performance was measured using the ROA.

4.2.1 Response Rate

Table 4.1: Response rate

Response rate	Frequency	Percentage
Responded	89	89
Did not respond	11	11
Total	100	100

Source, Author (2013)

The total number of questionnaires that were distributed to the field was 100 but 89 questionnaires which represent 89% were returned fully answered while 11 questionnaires which represent 11% were not returned. From table 4.1 and figure 4.1 it can be inferred that there was good response rate.

4.2.2 Type of Business:

Table 4.2: Type of Business:

	Frequency	Percent	Cumulative Percent
Limited Liability Company	12	13.5	13.5
Sole proprietorship	43	48.3	61.8
Partnership	34	38.2	100.0
Total	89	100.0	

Source, Author (2013)

The study above shows the response of respondents on their type of business: 14% indicated secondary level, 48% indicated Sole proprietorship while 14% indicated Limited Liability Company. From Table 4.2 and Figure 4.2 above, it can be deduced that a majority of the businesses were sole proprietorship.

4.2.3: Nature of Business

Table 4.3: Nature of Business

	Frequency	Percent	Cumulative Percent
Manufacturing	21	23.5	21.3
Wholesale	22	24.7	47.1
Retailing	24	26.9	81.9
Provision of services	22	24.7	100.0
Total	89	100.0	

Source, Author 2013

The above results show the nature of SMEs among sample category 26.9% of the SMEs were in retailing, 24.7% were in provision of services, while 24.7% and 23.5% were in wholesaling and manufacturing respectively. From table 4.5, it can be concluded that there was a good response rate across the sample categories.

4.2.4 Number of Employees

Table 4.4: Number of employees in the firm

Category	Frequency	Percent	Cumulative Percent
1-4	27	30.3	30.3
5-49	22	24.7	55.0
50-99	19	21.4	76.4
100-150	14	15.7	92.0
Over 150	7	7.9	100.0
Total	89	100.0	

Source, Author 2013

Results shown on table 4.4 indicate that majority (30.3 %) of the total SME's under study had between 1-4 employees , while the least (7.9%) number of business had a number of employees of over 150. From Table 4.4 it can be deduced that majority of the SME's had a smaller number of employees.

4.2.5 The annual Gross turnover

Table 4.5: Annual Gross Turnover

Category (In Kshs)	Frequency	Percent	Cumulative Percent
1-5,000,000	37	41.6	41.6
5,000,001-25,000,000	24	27.1	68.7
25,000,000-50,000,000	11	12.4	81.1
50,000,001-75,000,000	9	10.1	91.2
75,000,001-100,000,000	5	6.1	97.3
Over 100,000, 001	2	2.7	100.00
Total	89	100.0	

Source, Author 2013

The findings of the study indicate that most (41.6 %) of the total SMEs under study had annual Gross turnover of between 1-5,000,000 Kenya shillings , while the least (2.7%) were in the category of annual Gross turnover of Over 100,000, 001 Kenya Shillings. From Table 4.4 it can be deduced that majority of the SME's had annual Gross turnover of between 1-5,000,000 Kenya shillings.

4.2.6 Number of Years in Business

Table 4.6: Number of Years in Business

Category	Frequency	Percent	Cumulative Percent
1-3	28	31.5	31.5
4-6	26	29.2	60.7
7-10	21	23.6	84.3
Over 10	14	15.7	100.0
Total	89	100.0	

Majority (31.5%) of the SMEs under study had been in business for a period between 1-3 years and the least number (15.7%) of SMEs had been in business for a period of over 10 years, while 29.2% and 23.7% had been in business for a period between 4-6 and 7-10 years respectively. From table 4.5, it can be concluded that most of the SMEs had been in business for a period between 1-3 years.

4.2.7 Policy Statement on Working Capital Management

Table 4.7: Written Policy Statement Regarding Working Capital Management

Response	Frequency	Percent	Cumulative Percent
Yes	33	37.1	37.1
No	56	62.9	100.0
Total	89	100.0	

Source, Author 2013

Results of the study show that; 62.9% of the SMEs do not have written policy statements regarding WCM, while 37.1% indicated they have written policy statements regarding

WCM resources. Based on Table 4.7 above it can be inferred that majority of the SMEs do not have any written policy statement regarding working capital management.

Table 4.8: Areas that Written Policy Statement Covers

	Frequency	Percent	Cumulative Percent
Cash	12	13.5	13.5
Inventory	13	14.6	28.1
Debtors	10	11.2	39.3
Creditors	15	16.9	56.2
All of the above	39	43.8	100.0
Total	89	100.0	

Source, Author 2013

Table 4.8 shows that 43.8% of the SMEs under study indicate that their written policy statement on working capital covers all of the above (cash, inventory, debtors and creditors), while 11.2% indicated that their written policy statement on working capital covers cash, inventory, debtors and creditors. Based on the study can be inferred that written policy statement on working capital covers for most of the businesses cover cash, inventory, debtors and creditors.

4.2.8 Accounting System used by the Firm

Table 4.9: Type of Accounting System Used by the firm

	Frequency	Percent	Cumulative Percent
Computerised	21	23.6	23.6
Manual	37	41.6	65.2
Combination	31	34.8	100.0
Total	89	100.0	

Source, Author 2013

Findings of the study indicated that 41.6% of the SMEs under study indicate that they use manual accounting system, while 23.6% indicated that they use computerised accounting system. Based on table 4.9 it can be inferred that majority of the SMEs use manual accounting system.

Table 4.10: Type of computerized software used for accounts

	Frequency	Percent	Cumulative Percent
QuickBooks	6	28.6	28.6
Sage	8	38.1	66.7
Pastel	7	33.3	100.0
Total	21	100.0	

Source, Author 2013

Most (38.1%) of the SMEs who use computerised accounts indicated that use sage software, while 28.6% indicated that they use QuickBooks software. Based on the results on table 4.10 it can be inferred that majority of the SMEs that use computerised accounts use sage accounting software.

Table 4.11: Rate working capital management in terms of the number of problems faced

Area of Working Capital	LP	FP	MP	SP
Cash	19.1	49.3	9.1	22.3
Inventory	10.9	28.1	36.0	25.0
Debtors	32.7	32.6	20.3	12.4
Creditors	23.6	20.0	20.2	36.2

Source, Author 2013

Majority (49.3%), (36.0%), (32.7%) and (36.2%) of the SMEs under study indicated that they have faced few problems in regards to cash; faced most problems in inventory; least problems with debtors, while faced significant problems with regards to creditors. From the table 4.11 it can be concluded that creditors had significant problems, inventory had most problems, and cash had few problems, while debtors had least problems in most firms.

Table 4.12: Areas That Need Most Training

	Frequency	Percent	Cumulative Percent
Cash Management	14	15.7	15.7
Inventory Management	28	31.5	47.2
Debtors Management	13	14.6	61.8
Creditors Management	34	38.2	100.0
Total	89	100.0	

Source, Author 2013

Table 4.12 shows that 38.2% of the SMEs under study indicate that the area that needs training the most was creditors' management, while 14.6% indicated that the area that needs training the most was debtors' management. Based on the study it can be inferred that the area that needs training the most was creditors' management.

4.2.9 Cash Management

Table 4.13: Use of Formal Cash Management Models

	Frequency	Percent	Cumulative Percent
Yes	26	29.2	29.2
No	63	70.8	100.0
Total	89	100.0	

Source, Author 2013

Results of the study indicated 70.8% of the SMEs under study do not use formal cash management models, while 29.2% use formal cash management model. Based on Table 4.13 above it can be inferred that majority of the firms do not use formal cash management models.

Table 4.14: Cash Management Technique That Firms Use

	Frequency	Percent	Cumulative Percent
Baumol Model	8	30.8	30.7
Miller Orr Model	7	26.9	57.6
Stone Model	6	23.2	80.8
Break Neck Model	5	19.2	100.0
Total	26	100.0	

Source, Author 2013

Results on table 4.14 show that 30.8% of the SMEs use Baumol Model, while the least (14.6%) number of SMEs use Break Neck Model. From the findings it can be concluded that most firms use Baumol Model.

Table 4.15: How Often Does the Firm Plan for Cash Inflows and Outflows

	Frequency	Percent	Cumulative Percent
Daily	10	11.3	11.3
Weekly	23	25.8	37.1
Fortnightly	22	24.7	61.8
Monthly	34	38.2	100.0
Total	89	100.0	

Source, Author 2013

Table 4.15 shows that majority (38.2%) of the SMEs plan for cash inflows and outflows on monthly basis, while the least (11.3%) number of SMEs indicated that they plan for cash inflows and outflows on daily basis. From the findings it can be concluded that most firms plan for cash inflows and outflows on monthly basis.

Table 4.16: Cash Management

Question	Never	Hardly ever	Some times	Mostly	Always
Does the firm budget its cash?	13.5	14.6	15.7	39.6	16.9
Does the firm control disbursements and receipts of cash?	12.6	11.0	19.3	21.3	35.7
Does the firm invest any excess cash?	8.1	6.7	20.1	26.1	29.2

Source, Author 2013

According to the study shown in table above majority (39.6%), (35.7%) and (29.2%) of the SMEs indicated that they mostly and always budget their cash, control disbursements and receipts of cash and invest any excess cash respectively. From table 4.16 it can be concluded that most firms always budget their cash, control disbursements and receipts of cash and invest any excess cash.

Table 4.17: Frequency of Cash Banking

	Frequency	Percent	Cumulative Percent
Daily	62	69.7	69.7
Weekly	17	19.1	88.8
Fortnightly	9	10.1	98.9
Monthly	1	1.1	100.0
Total	89	100.0	

Source, Author 2013

Majority (69.7%) of the SMEs indicate that they bank cash daily, while 1.1% of SMEs indicated that they bank cash on monthly basis. From the findings shown on table 4.17 it can be concluded that majority of SMEs bank their cash daily.

Table 4.18: Areas the Firm Invest Excess Cash

	Frequency	Percent	Cumulative Percent
Bank Deposits	26	29.2	29.2
Securities	28	31.5	60.7
Lending	9	10.1	70.8
Real Estate	26	29.2	100.0
Total	89	100.0	

Source, Author 2013

Results of the study indicate that 31.5% of the SMEs invest in securities, while 10.1% of SMEs indicated that they lend the excess cash. From the findings shown on table 4.18 it can be concluded that majority of firms invest their cash in marketable securities.

Table 4.19: Rate ease of access of sources of funds that the firm can access

Area of Working Capital	EA	ME	E	D	MD
SACCOS	47.2	52.8			
Friends and Relatives	36.1	30.6	11.1	8.3	14
Banks	14.0	19.0	8.3	25.0	33.3
Microfinance Institutions	8.3	11.1	17.0	33.1	30.5

Source, Author 2013

Majority (52.8%), (36.1%), (33.3%) and (33.1%) of the SMEs under study indicated that they had moderately easy access to SACCO funds easy access to funds from friends and relatives, most difficult access to funds from banks and difficult access to funds from

microfinance institutions. Based on the results from table 4.19 it can be concluded that relatively SMEs have access to funds from SACCOS, friends and relatives and difficulties accessing funds from banks and microfinance institutions.

4.2.10 Management of Accounts Receivable

Results of the study presented under Appendix I show that (24%), (34.1%), (42.7%), (36.1%) (38.9%), (42.2%), (50.0%), (33.3%), (33.3%), (28.4%), (34.1%) and (35.4%) of the SMEs indicated that they mostly have a credit policy, sometimes the SMEs offer some sales on credit, sometimes firms offer cash discounts, most debtors hardly ever stick to the credit period, mostly some of the debtors default in payment, sometimes SMEs suffer bad debts, sometimes legal action taken to recover bad debts, mostly SMEs screen customers or do client reference before giving credit, mostly SMEs analyze and report on debtors aging, mostly SMEs monitor receivables, always firms factor debtors and always there a credit collection policy.

4.2.11 Management of Accounts Payable (Creditors)

Under Appendix II, most (35%), (38.9%), (30.1%), (36.1%) (33.3%), (33.3%) of the total SMEs indicated that sometimes they obtain services on credit, their suppliers mostly offer cash discounts and sometimes offer quantity discounts, all creditors are hardly paid on time, they sometime use ratios in monitoring trade credit and they always exploit trade credit as much as possible.

In addition, most (30.2%), (36.1%), (38.3%) and (37.1%) of the SMEs under study indicated that they have difficulties in accessing bank loans, they have most difficulties in accessing overdrafts, have easy access to Bills discounting and letters of credit and have

difficulties in accessing working capital loans. Based on the results, the SME's have at least some access to funds.

4.2.12 Management of Inventory

Table 4.20: Kind of Stock Firms Deal With

	Frequency	Percent	Cumulative Percent
First Moving	21	23.6	23.6
Slow Moving	20	32.6	56.2
Services	10	11.2	67.4
All the above	38	32.6	100.0
Total	89	100.0	

Source, Author 2013

According to the study 23.6% of the total SMEs under study indicated that they deal with first moving stocks, 32.6% indicated slow moving, while 11.2% and 32.6% indicated services and all the above respectively. From Table 4.20 above majority of the SMEs deal with first moving, slow moving and services.

Table 4.21: Stock Management Model Used By the Firm

	Frequency	Percent	Cumulative Percent
Just In Time	16	18.0	18.0
Economic Order Model	26	29.2	47.2
Both	43	48.3	95.5
Ad Hoc/Gud Feeling	4	4.5	100.0
Total	89	100.0	

Results of the study show that 18% and 29.2% of the SMEs use Just In Time and Economic Order stock management models respectively, 48.3% of SMEs use both Just In Time and Economic Order stock management models, while 4.5% of the SMEs use ad Hoc/Gud Feeling. From Table 4.21 it can be concluded that most of the SMEs use both Just in Time and Economic Order stock management models.

Table 4.22: Type of Inventory System Used

	Frequency	Percent	Cumulative Percent
Manual	24	27.0	27.0
Computerised	17	19.1	46.1
Both Manual and Computerised	48	53.9	100.0
Total	89	100.0	

From the study 27% and 19.1% of the SMEs use manual and computerised inventory system respectively, 38.2% use both Manual and Computerised of inventory system. From Table 4.22 above majority of the firms use both manual and computerised of inventory system.

From Appendix III, majority of the SMEs (29.7%, 32.4% 43.2 %, 24.3% and 35.1%; 36.1%; 29.0% and 37.8) indicated that mostly they have adequate stock to meet demand at all times; there is never any time when the SMEs is under stocked; sometimes there are times when the SMEs is over stocked; the firm maintain safety stock always; mostly the SMEs offer quantity discounts; sometimes the SMEs use economic order quantity each time it orders stock, SMEs maintain up to date stock records always and that there are always controls over security and authorization of stock.

4.2.13: Descriptive Analysis of WCM practices by SMEs

Results of the study presented under Appendix IV, show an improvement in return on assets from 2009 (-4.85%) to 2010 (-1.79) for most firms. The ACP was 35 days in 2010 and 41 day in 2009 showing an improvement? The time taken to convert inventory held into sales took an average of 22 days in 2010 while in 2009 it 27 days. The SMEs paid their suppliers in an average period of 33 day in 2010 a slight improvement from 2009 during which they were paying their suppliers after an average of 38 days. The SMEs also collected cash from their customers within 25 day in 2010 and 29 days in 2009. Results show variation from the mean exhibited in all the performance indicators. From these results, we can infer that on average there was an improvement in profitability and that the financial position was stable.

4.2.14 Relationship between Working Capital Management and Return on Assets

Table 4.23: Regression Model Summary

Model	R	R Square	df	P-Value	Sig.
1	.859 ^a	.737 ^a	5	.128 ^a	.037 ^a

a. Dependent Variable: Return On Assets

Table 4.24: Regression Coefficients^a

Variables	B	Beta	t	Sig.
(Constant)	1.640		7.752	.000
Average Collection Period	0.160	0.155	0.902	0.72
Inventory Conversion Period	0.084	0.209	1.213	0.003
Average Payable Period	0.051	0.127	0.696	0.040

a. Dependent Variable: Return On Assets

Results of the study on table 4.23 and 4.24 based on the significance level (alpha) of 0.05 (95%), degrees of freedom (df) of 5, and two-tailed test, shows the degree of the relationship between return on assets and working capital tools (average collection period, inventory conversion period, average payable period). The findings established a positive correlation coefficient (r), = 0.859, (r^2) = 0.737 (indicating that 73.7% probability of return on assets is influenced by average collection period, inventory conversion period, average payable period. In addition, the computed t-value ($t=2.002$) is smaller than the critical t-value ($t= 2.57$), while the p-value of 0.128 is larger than the significance level of 0.05. This then indicate that there is a relationship between return on assets and working capital tools (average collection period, inventory conversion period, and average payable period).

4.2.15 Level of Significance of WCM on Financial Performance

4.2.15.1 Return on Assets and average collection period

Table 4.25: Correlation Model

R	R Square	df	Sig
.833 ^a	.693	5	.028

b. Dependent Variable: Return on Assets

Results on table 4.25 above shows the correlations between Return on Assets and average collection period, while holding the correlation coefficient (r) value at between plus and minus one (-1.00 and +1.0). The study used the significance level of alpha = .05. (95%), Degrees of freedom (df) of 5, and two-tailed test. Based on the study, correlation coefficient (r) was .833 and the coefficient of determination (r^2) was .693 indicating that

69% of Return on Assets is influenced by average collection period. Since the correlation of .693 is positive it can be concluded that the correlation is statistically significant, hence there is a positive relationship between Return on Assets and average collection period.

4.2.15.2 Inventory Conversion Period and Return on Assets

Table 4.26: Correlation Model^b

	R	R Square	df	sig
1	.869 ^a	.0755	5	.023

a. Dependent Variable: Return on Assets

Tables 4.26 above, shows whether; ICP is different from 0 so that it has an effect on ROA, or if any apparent differences from 0 are due to random chance. The study used a significance level (alpha) of 0.05 (95%), Degrees of freedom (df) of 5, and two-tailed test. The relationship between ICP and ROA is expressed in the positive correlation coefficient ($r = 0.869$, $r^2 = 0.755$) indicating that 75% probability of the existence of a relationship between ICP and ROA.

4.2.15.3 Average Payable Period and Return on Assets

Table 4.27: Correlation Model^b

	R	R Square	Df	P-Value	t- value	Sig
	.883 ^a	.779	5	.219	2.010	.044

a. Dependent Variable: Return on Assets

Table 4.27 above indicated whether average payable period is different from 0 so that it has an effect on return on assets or if alternatively any apparent differences from 0 is just due to random chance. The study used a significance level (alpha) of 0.05 (95%), Degrees of freedom (df) of 5, and two-tailed test. The degree to which average payable

period is related to return on assets is expressed in the positive correlation coefficient (r) = 0.883, (r^2) = 0.779 indicating that 77.9% probability of return on assets is influenced by average payable period.

4.3 Summary of findings and discussions

4.3.1 Working capital Management practices

In relation to cash management, results of the study indicated that majority (70.8 %) of the SMEs do not use formal cash management models. Majority (30.8) of the SMEs that used formal cash management models, used the Baumol Model and the least (14.6%) used the Break Neck Model. In regards to planning for cash inflows and outflows, most of the SME's planned on a monthly basis while the least planned on a weekly basis. The results of the study further indicated that most SMEs always budget for their cash, control disbursements and receipts and invest in any excess cash. Most of the SMEs banked their cash on a daily basis and most invested excess cash in securities. From these results findings, most SMEs do not use the formal cash management practices, but are keen in managing their cash in informal practices.

Regarding management of accounts receivables, results of the study show that 62.9% of the SMEs do not have written policy statement. Majority (24%), (34.1%), (42.7%), (36.1%) (38.9%), (42.2%), (50.0%), (33.3%) (33.3%), (28.4%), (34.1%) and (35.4%) of the SMEs indicated that they mostly have a credit policy, they sometimes offer sales on credit, sometimes offer cash discounts, most debtors hardly ever stick to the credit period, mostly some of the debtors default in payment, sometimes firm suffer bad debts, sometimes legal action taken to recover bad debts, mostly firm screen customers or do

client reference before giving credit, mostly firms analyze and report on debtors aging, mostly firms monitor receivables, always firms factor debtors and always there a credit collection policy. 48.3% of firms use both Just In Time and Economic Order stock management models.

In relation to management of accounts payable, results show that majority (35%) of the SMEs sometimes obtain services on credit, 38.9% mostly offer suppliers cash discounts and 30.1 % offer quantity discounts. In addition, majority of the SMEs indicated they never pay their creditors on time, majority also stated that they sometimes use ratios in monitoring trade credit and majority indicated that they always exploit trade credit as much as possible.

Regarding management of inventory, results shows that majority, (29.7%, 32.4% 43.2 %, 24.3% and 35.1%; 36.1%; 29.0% and 37.8) of the firms have adequate stock to meet demand at all times; there is never any time when the firm is under stocked; there are times when the firm is over stocked; the firm maintains safety stock always; mostly the firms offer quantity discounts; sometimes the firms use economic order quantity each time it orders stock, firms maintain up to date stock records always and that there are always controls over security and authorization of stock.

The findings above are in line with the findings of Nyabwaga et al. (2012) that WCM practices were low amongst SSEs as majority had not adopted formal WCM routines and their financial performance was on a low average.

4.3.2 Effect of Working Capital Management on Financial Performance of SMEs

Results of the study show an improvement in return on assets from 2009 (-4.85%) to 2010 (-1.79) for most firms. Average collection period was 35 days in 2009 and 41 day in 2010 showing an improvement. This is in line with the views of Filbeck and Krueger (2005) who observed that the ability of financial managers to effectively manage receivables, inventories, and payables has a significant impact on the success of the business.

Results of the regression analysis shows a correlation coefficient (r), = 0.859, (r^2) = 0.737, computed t-value ($t=2.002$), critical t-value ($t= 2.57$) and p-value of (0.128). This indicates that there is a significant positive relationship between ROA and working capital components (ACP, ICP and APP). This in line with the findings of Nyabwaga et. al., (2012) who established that SSE financial performance was positively related to efficiency of cash management, efficiency of receivables management and efficiency of inventory management.

Results of the pearsons' correlations analysis between ROA and ACP, indicates a positive correlation coefficient (r) was 0.833 and the coefficient of determination (r^2) of 0.693 indicating a positive relationship between ROA and ACP. These findings do not concur with those of Mathuva (2010) who established a negative relationship between ROA and ACP. However, the results are in line with the findings of Nyabwaga et. al., (2012) who established a positive relationship between profitability of SMEs and Management efficiency of accounts receivable.

The relationship between inventory conversion period and return on assets is expressed in the positive correlation coefficient $(r) = 0.869$, $(r^2) = 0.755$ indicating that 75% probability of the existence of a relationship between ICP and ROA. This is in line with the study by Kithii (2008) who established that there is a statistical significant negative relationship between variables of WCM and the profitability of firms.

The degree to which APP is related to ROA is expressed in the positive correlation coefficient $(r) = 0.883$, $(r^2) = 0.779$ (indicating that 77.9% probability of return on assets is influenced by APP). The findings of the study do not concur with findings of Lazaridis and Tryfonidis, (2006) who established that there is negative relation between the APP and financial performance. However, it's in line with the findings of Mathuva (2010) who found a positive relationship between inventory turnover in days and profitability.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings, conclusions drawn from the findings, policy recommendations and recommendations for further studies. The chapter also highlights the limitations of the study.

5.2 Summary of findings

The first objective of this study was to establish which SMEs WCM practices are carried out in the SME sector in Kenya. The study established that most SMEs have not established a formal WCM policy. However, some SMEs carry out informal WCM, as was revealed by responses in regards to WCM components (ACP, ICP and APP). These results are in line with the findings of Nyabwaga et al. (2012) who established that WCM practices were low amongst SSEs as majority had not adopted formal WCM routines and their financial performance was on a low average.

The second objective of this study was to establish the effect of WCM on the financial performance of SMEs in Kenya. The study established that SMEs who have adopted WCM practices have showed an improvement in ROA as evidenced by duration of ACP, APP and ICP. This is in line with the findings of Brigham & Hauston, (2007) who established that all individual components of working capital including play a vital role in the financial performance of any firm. In addition, the results are in line with the findings of Deloof (2003) who noted that WCM is a fundamental part of any firm's overall

corporate strategy to create value, to ensure financial health and provide competitive advantage.

From the Pearson's correlation analysis, there is a significant relationship between ROA and WCM practices (ACP, ICP and APP). A significant positive relationship between ROA and ACP was established. This means that SMEs can improve their ROA by increasing the number of days accounts receivables are outstanding. The positive coefficient means that an increase in the number of days accounts receivables are outstanding will lead to an increase in ROA. This finding implies that a less stringent accounts receivable policy giving customers more time to make their payments improves financial performance. This is in line with the findings of Nyabwaga et al. (2012).

A significant positive relationship was also established between ROA and APP. This suggests that an increase in the number of days of accounts payable will lead to an increase in the ROA of the firm. Contrary to Dechow (2003) and Raheman and Nasr (2007), this finding holds that more profitable firms wait longer to pay their bills. This implies that SMEs withhold their payment to suppliers so as to take advantage of cash available for their working capital needs. However, this finding is in line with the rules of WCM that firms should strive to lag their payments to creditors as much as possible, taking care to maintain their business relationships with them (Mathuva, 2010).

Finally, a significant positive relationship was established between ROA and ICP. This means that maintaining high levels of inventory reduces the cost of possible interruptions in the production process. In addition, a high level of inventory also helps reduce on the cost of supplying the products and protects the firm against price fluctuations.

5.3 Conclusion

The study concluded that most SMEs in Kenya do not carry out formal WCM practices. However, SMEs in Kenya carry out some of the WCM practices in an informal manner where they do not have a written down policy statement on WCM practices.

The study also concluded that there is a significant positive relationship between financial performance and WCM of SMEs in Kenya. These results suggest that managers can create value for their shareholders by increasing the number of accounts receivable days, accounts payable days and inventories collection days.

In addition, the study concluded that management need to develop an understanding and appreciation of how the day-to-day activities of managing working capital in relation to the SMEs financial performance. At the same time, managers involved in the day-to-day working capital operations need to become conversant with the language of management relating to working capital operations so as to put in place a process that ensures high impact on firms' performance.

These results are in line with the findings of, (Nyabwaga et al. 2012, deloof 2003 and Raheman & Nasr 2007) who established a positive relationship between WCM components and the financial performance of firms.

5.4 Limitations

The sample used for this study was small compared to the population of all registered SMEs in Kenya. This study applied a sample of 100 registered SMEs in Kenya while the population of all registered SMEs in Kenya stands at 1.6 Million as per the Ministry of Trade and Industrialization database.

This study applied both primary and secondary data. The collection of primary data through a questionnaire posed a challenge since there was reluctance from staff of various organizations in providing some specific information. In addition, the collection of secondary data from the annual reports of the SME's was also a challenge since some SME's did not have proper financial records and some of those that had, were reluctant to share them. The researcher however, assured the respondents of anonymity and confidentiality of the information provided to enhance the response rate.

The time period for collection of data was limited and this posed a challenge in enhancing the response rate. Data for this study was collected within a period of one month and given the depth of the study, one month was not adequate. Due to the limited time period, secondary data from the financial statements was collected for only two years, 2009 and 2010. This limited the scope of the study.

A multiple regression model was applied to test the effect of working capital management on the financial performance of SME's in Kenya. Financial performance in this regression analysis was represented by ROA. There many financial ratios that can represent financial performance. These include return on equity, gross profit, net

operating profit, among others. Therefore, the use of ROA to represent financial performance was limiting.

This study was restricted to SMEs in Kenya and therefore caution should be taken in generalizing the findings of this study to other sectors in Kenya.

5.5 Recommendations

5.5.1 Policy Recommendations

To increase financial performance among the SMEs there is need for these firms to reduce the inventory conversion period by producing and selling goods faster and reducing the receivables collection period by accelerating collections .firms need to invest in their delivery and collection process of their finances a gradual decrease in the amount of inventory, and to be involved in effective planning of the working capital. To establish the link between effective working capital management and improved financial performance, management must commit to developing an understanding in the firm on how working capital management affects financial performance.

There is need for both management and staff responsible for managing working capital to be trained in the management of financial performance metrics so that decisions made at the operational level are tied to expected outcomes. General educational programme need to be undertaken among the SMEs manager to raise their level of awareness on the role of working capital in their business the impact of the of other staff daily activities on the firm's overall performance.

SMEs Managers need to focus on WCM in order to increase their profitability by taking seriously and professionally issues arising from the number of days accounts payable, the number of days accounts receivable, and the number of days of inventories. Besides SMEs managers need to reduce the number of day's of accounts receivable and inventories so as to can increase their companies' financial performance.

5.5.2 Recommendations for further research

This research study was limited to data collected from the sampled population. However, there are many other registered SMEs spread throughout the country. Hence there is need for other researchers to consider larger and different sample sets so to take into consideration the different environment in which some of them operate. This will allow for comparison between the results of the different studies.

Due to the limited time period, it was not possible to collect comprehensive data needed to measure the relationship between WCM and financial performance of SME's in Kenya. In this regard, there is need for other researchers to widen the study by including collecting secondary data covering a wider period of time, for instance 10 years. Compared to the two years used for this study, different results may be arrived at by use of a wider time period.

This study was limited by the reluctant responses to the questionnaire and also reluctance to availing the financial statements. In this regard, there is need for researchers to explore the use of different data collection techniques which will enhance the response rate. With an enhance response rate, the researchers may come up with different findings.

The model used in this study has various limitations. This includes the use of ROA as a proxy for financial performance. Further studies should be carried out on the effect of WCM on the financial performance of SME's in Kenya and an expansion of the model used, where it can apply more than one proxy for financial performance. In addition, a different model can be applied to analyse this relationship. The researchers may come up with different results.

The study was also restricted to the SMEs sector in Kenya. This can cause limitations in regards to the generalization of results to the Kenyan economy. In this regard, further studies can be performed on other sectors of the economy which may result in different findings.

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APPENDICES

Appendix i: Responses on Management of Accounts Receivable

Question	Never	Hardly ever	Some times	Mostly	Always
Does the firm have a credit policy?	13.5	16.9	22.5	24.0	20.2
Does the firm offer some sales on credit?	9.0	25.8	34.1	19.1	12.0
Does the firm offer cash discounts?	12.6	11.2	42.7	13.5	10.0
Do most debtors stick to the credit period?	30.6	36.1	13.9	8.3	11.1
Do some of the debtors default in payment?	6.0	11.1	33.3	38.9	11.1
Does the firm suffer bad debts?	3.0	14.0	42.2	16.7	24.1
Is legal action taken to recover them?	6.0	6.0	50.0	27.8	11.1
Does the firm screen customers or do client reference before giving credit?	10.1	13.2	21.2	33.3	22.2
Does the enterprise analyze and report on debtors aging?	11.1	19.0	20.0	33.3	9.0
Does the firm monitor receivables?	5.0	10.5	25.3	28.4	20.3
Does the firm factor debtors?	8.0	10.0	27.8	20.1	34.1
Is there a credit collection policy?	10.2	11.1	20.2	20.1	35.4

Source, Author 2013

Appendix ii: Responses on management of Accounts Payable

Accounts Payable Management practices

Question	Never	Hardly ever	Some times	Mostly	Always
Does the firm obtain services on credit?	12.1	16.7	35.0	23.2	10.0
Do the firm's suppliers offer cash discounts?	10.3	12.0	16.7	38.9	22.1
Do they also offer quantity discounts?	8.0	5.1	30.1	27.8	29.0
Are all creditors paid in time?	30.6	36.1	11.1	8.3	14
Does the firm use ratios in monitoring trade credit?	14.0	8.3	33.8	25.0	19
Does the firm exploit trade credit as much as possible?	8.3	11.1	17.0	30.5	33.3

Source, Author 2013

Rate ease of access of sources of funds that the firm can access

Source of funds	EA	ME	E	D %	MD
Bank loans		17.0	25.4	30.2	27.4
Overdraft	14	8.3	11.1	30.6	36.1
Bills discounting	14.0	20.0	38.3	19.0	8.3
Letter of credit	8.3	28.5	35.1	17.0	11.1
Working capital loan	10.8	19.2	11.5	37.1	21.3

Source, Author 2013

Appendix iii: Responses on the Management of Inventory

Question	Never	Hardly ever	Some times	Mostly	Always
Does the firm have adequate stock to meet demand at all times?	10.8	13.5	23.4	29.7	22.5
Are there times when the firm is under stocked?	32.4	28.1	16.2	15.1	8.1
Are there times when the firm is over stocked?	23.0	29.7	43.2	17.2	11.1
Does the firm maintain safety stock?	20.3	15.3	14.8	24.3	25.2
Does the firm offer quantity discounts?	10.2	14.1	16.2	35.1	24.3
Does it use economic order quantity each time it orders stock?	8.1	10.4	36.1	26.4	18.9
Does the firm maintain up to date stock records?	13.5	10.8	25.1	21.6	29.0
Are there controls over security and authorization of stock?	5.4	10.3	19.4	27.0	37.8

Source, Author 2013

Appendix iv: Descriptive Statistics of Financial Performance of SMEs

Indicators		2009	2010%
ROA	Min	-1.79%	-4.85%
	Max	7.18%	6.95%
	Median	3.56%	3.33%
	Mean	2.25%	2.80%
	Standard Deviation	0.679%	0.780%
ICP	Min	34.2	0
	Max	163.2	178.9
	Median	27.3	34.1
	Mean	22.37	27.31
	Standard Deviation	15.059	17.65
ACP	Min	0	0
	Max	124.7	134.2
	Median	43.5	48.6
	Mean	25.94	29.31
	Standard Deviation	19.126	18.087
APP	Min	4.893	4.921
	Max	153.89	164.35
	Median	60.34	76.26
	Mean	33.65	38.821
	Standard Deviation	19.977	26.019

Source, Author 2013

Appendix v: questionnaire

An analysis of the Practice of Working Capital Management in SMEs in Kenya

Instructions:

Kindly complete the following questionnaire using the instructions provided for each set of questions.

Statement of Confidentiality:

The responses you provide will be strictly confidential. No reference will be made to any individual(s) or organization in the report of the study. The questionnaire is entirely for academic purposes.

A: GENERAL

1. Select type of business:
 - Sole proprietorship
 - Partnership
 - Limited Liability Company
2. Kindly select the nature of business and specify the business carried out
 - Manufacturing _____
 - Wholesale _____
 - Retailing _____
 - Provision of services e.g. restaurant, security _____
3. How many employees does the firm have?
 - 0 to 4
 - 5 to 49
 - 50 to 99
 - 100 to 150
 - Over 150
4. What is the annual Gross turnover?
 - Ksh 0 to Ksh 5,000,000
 - Ksh 5,000,001 to Ksh. 25,000,000
 - Ksh 25,000,001 to Ksh 50,000,000
 - Ksh 50,000,001 to Ksh 75,000,000
 - Ksh 75,000,001 to Ksh 100,000,000
 - Over Ksh 100,000,000
5. How many years has the company been in business?
 - 0-3
 - 4-6
 - 7-10
 - Over 10
6. Does your enterprise have any written policy statement regarding working capital management strategy?
 - Yes
 - No
7. If yes, kindly indicate the areas it covers
 - Cash
 - Inventory

- Debtors
 - Creditors
 - All of the above
8. What accounting system does the firm use?
- Computerized
 - Manual
 - A combination of computerized and manual
9. If the firm uses computerized software for its accounts, which of the following does it use?
- QuickBooks
 - Sage
 - Pastel
 - Other _____
10. Rank each single area of working capital management in terms of the number of problems faced. Use the following scale:
- 1=Least problems
 2=Few Problems
 3=Many problems
 4=Most problems

<i>Area of Working Capital</i>	<i>Ranking</i>
Cash	
Inventory	
Debtors	
Creditors	

11. Of the above areas of working capital, which area would the firm need training. Kindly tick all that are appropriate.
- Cash management
 - Inventory management
 - Debtors management
 - Creditors management

B: CASH:

12. Does the firm use formal cash management models?
- Yes
 - No
13. If YES, what technique does the firm use? (Please specify)
- Baumol Model
 - Miller Orr Model
 - Stone Model
 - Break Neck
 - None of the above (Please give what is used) _____

14. How often does the firm plan for cash inflows and outflows?

- Daily
- Weekly
- Fortnightly
- Monthly
- Other (specify) _____

Please tick in the appropriate box

<i>Question</i>	<i>Never</i>	<i>Hardly ever</i>	<i>Some times</i>	<i>Mostly</i>	<i>Always</i>
15. Does the firm budget its cash?					
16. Does the firm control disbursements and receipts of cash?					
17. Does the firm invest any excess cash?					

18. How frequently does the firm bank its cash? (Tick one)

- Daily
- Weekly
- Fortnightly
- Monthly
- Other (specify) _____

19. In which of the following areas does the firm invest excess cash?

- Bank deposits
- Marketable securities (shares, commercial paper,)
- Lending
- Real Estate
- Other investment. Please state _____

20. Rank the ease of access of sources of funds that the firm can access using the following scale:

- 1= easiest to access
- 2= moderately easy
- 3= easy
- 4= moderately difficult
- 5= most difficult

<i>Source of funds</i>	<i>Ranking</i>
SACCOS	
Friends and Relatives	
Banks	
Microfinance Institutions	

C: ACCOUNTS RECEIVABLE (Debtors)

Please tick in the appropriate box

<i>Question</i>	<i>Never</i>	<i>Hardly ever</i>	<i>Some times</i>	<i>Mostly</i>	<i>Always</i>
21. Does the firm have a credit policy?					
22. Does the firm offer some sales on credit?					
23. Does the firm offer cash discounts?					
24. Do most debtors stick to the credit period?					
25. Do some of the debtors default in payment?					
26. Does the firm suffer bad debts					
27. Is legal action taken to recover them?					
28. Does the firm screen customers or do client reference before giving credit?					
29. Does the enterprise analyze and report on debtors aging?					
30. Does the firm monitor receivables?					
31. Does the firm factor debtors?					
32. Is there a credit collection policy?					

D: ACCOUNTS PAYABLE (Creditors)

Please tick in the appropriate box

<i>Question</i>	<i>Never</i>	<i>Hardly ever</i>	<i>Some times</i>	<i>Mostly</i>	<i>Always</i>
33. Does the firm obtain services on credit?					
34. Does the firm's suppliers offer cash discounts?					
35. Do they also offer quantity discounts?					
36. Are all creditors paid in time?					
37. Does the firm use ratios in monitoring trade credit?					
38. Does the firm exploit trade credit as much as possible?					

39. Rank the ease of access of the following sources of funds on the following scale:

1= easiest to access

2= moderately easy to access

3= easy to access

4= slightly difficult to access

5= very difficult to access

6= most difficult to access

<i>Source of funds</i>	<i>Ranking</i>
Bank loans	
Overdraft	
Bills discounting	
Letter of credit	
Working capital loan	

E: INVENTORY CONTROL (Stock Control)

40. What kind of stock does the firm deal with?

- Fast moving consumer goods
- Slow moving consumer goods
- Services
- All of the above

41. What stock Management Model does the firm use?

- Just in Time
- Economic Order Model
- Both
- Ad hoc/Gut feeling
- None of the above _____

42. What type of inventory system is in use?

- Manual
- Computerized
- Both Manual and computerized
- None of the above

Please tick in the appropriate box

<i>Question</i>	<i>Never</i>	<i>Hardly ever</i>	<i>Some times</i>	<i>Mostly</i>	<i>Always</i>
43. Does the firm have adequate stock to meet demand at all times?					
44. Are there times when the firm is under stocked?					
45. Are there times when the firm is over stocked?					
46. Does the firm maintain safety stock?					
47. Does the firm offer quantity discounts?					
48. Does the firm know the economic order quantity?					
49. Does it use it each time it orders stock?					
50. Does the firm maintain up to date stock records?					
51. Is the reorder level known?					
52. Does the firm use accounting ratios in monitoring stock?					
53. Are there controls over security and authorization of stock?					
54. Is the system used in controlling stock movement effective?					

Thank you for taking your time to fill in the above questionnaire. Your efforts are highly appreciated