



Influence of Working Capital Management Practices on Financial Performance of Small and Medium Enterprises in Machakos Sub-County, Kenya

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Abstract

Working capital can be considered as source of existence for all types of organizations, whether profit or non-profit organizations, therefore, it is a vital component for any profit making organizations for it influences operational level and sales volume. The purpose of this study was to assess the influence of Working Capital Management Practices on Financial Performance of SMEs in Machakos Sub-County, Kenya. This study was based on these objectives: assessment of the influence of cash management practices on financial performance, determination of the influence of receivables management practices on financial performance and the analysis of the extent to which inventory management practices influences financial performance of SMEs. The study adopted a cross-sectional survey research design which allowed the collection of primary quantitative data through structured questionnaires and interview methods. The target population was 159 Owners / Managers of SMEs trading in Machakos Sub-County. Random sampling technique was used to obtain a sample of 22 SMEs trading in Machakos Sub-County. The data was analyzed using both descriptive and inferential statistics.

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The findings of the study revealed that; working capital management practices were low amongst the SMEs, since majority had not adopted formal Working Capital Management Practices and their Financial Performance was on a low average. The study further revealed that SMEs financial performance was positively related to efficient cash management, efficient receivable management and efficient inventory management at 0.01 significance level. The coefficient of determination (R^2) indicated that 0.507 or 50.7% of the variables in F.P could be explained by the changes ECM, ERM and EIM. This study concluded that WCMPs have an influence on the F.P of SMEs; therefore, there is need for SMEs owners / managers to embrace EWCMPs as a strategy to improve their F.P in order to survive in the turbulent business environment. This study corroborates extant literature findings that established a positive relationship between WCMP and F.P

Keywords: working capital; financial performance; small and micro enterprises.

1. Introduction

1.1 Background of the Study

Working Capital is the difference between a firm's Current Assets and Current Liabilities [44]. Working Capital (WC) is defined as all the short-term assets used in daily operations of a firm. This primarily consists of Cash, Receivables, Inventory and Payables [32]. Working Capital, the money needed for the day-to-day, operations of a firm, is described as investment of a firm's capital Current Assets and the use of Current Liabilities to fund part of the investment.

Working Capital Management focuses on the coordinated control of the firm's current assets and liabilities [27]. Working Capital Management is concerned with the problems that arise in attempting to manage the Current Assets, the Current Liabilities and the interrelationship that exists between them [47]. Current Assets are those assets which in ordinary course of business can be or will be converted into cash within one year without undergoing a diminution in value and without disrupting the operations of the firm [47]. Current liabilities are those liabilities which are intended at their inception, to be paid in the ordinary course of business, within a year, out of current assets or earnings of the concern [47]. The goal of Working Capital Management is to manage the firm's current assets and liabilities in such a way that a satisfactory level of working capital is maintained [7]. The interaction between current asset and current liabilities is therefore the main theme of the theory of working capital management [39].

However [6] observed that there is evidence that many SMEs are not very good at managing working capital despite their high investments in current assets, and this has been a major cause of their high failure rates as compared to LSEs. According to him, majority of the SMEs operate with no credit department, implying that both the expertise and the information required to make sound judgments concerning terms of sales may not be available. They also lack proper debt collection procedures, hence they tend to experience increased risks of late payments and default by debtors who tend to increase where there is an exclusive concern for growth, and in the case SMEs may not be too willing to extend credit to customers who have poor credit risks. Also a study by [10] found that debt collection was identified by 55% to be among the top five major challenges facing micro and

small business.

Research studies have been undertaken on WCM in India, Pakistan, Mauritian, U.K, US, Belgium, Ghana and Nigeria to identify the push factors for firms to adopt good WCMPs and to investigate the association between WCMPs and profitability of both SMEs and LSEs [53]. However, in Kenya, specific research studies exclusively on the influence of WCM on corporate financial performance of SMEs are very scanty, in particular for the case of Machakos Sub-County, Kenya.

A study by [10]s to establish the role of SMEs in economic growth indicated countries with a large share of SMEs employment have higher economic growth than their counterparts. Small and Medium Enterprises, in Kenya, are generally acknowledged as vital and significant contributors to economic development through their perceived critical role in providing job opportunities, poverty reduction, and entrepreneurship development and their acting as intermediaries in trade [49]. This agrees with a study of UK SMEs by [12] that those SMEs, make a major contribution to the health of the economy and help to diversify opportunity in the society. SMEs in the UK have increased in importance, measured in terms of their share of manufacturing, employment and output. The number of SMEs continues to rise as does the number of people classified as self-employed.

According to the economic survey of 2006, SMEs contributed over 50% of new jobs created in the year 2005 and 20% of the GDP of Kenya. The government also estimates that SMEs employment is growing at the rate of 11% p.a. [24]. In recognition of this indispensable role of SMEs, many micro-finance institutions have been on the forefront in providing these enterprises with micro-credit. This has seen their access to micro-credit increase from 7.5% in 2006 to 17.9% in 2009 [24].

Despite their significant and increased efforts to ensure the success of SME, [34] estimates that two-thirds of the SMEs were generating income equal or below the minimum wage, a sobering finding that must temper one's enthusiasm for the growth of SMEs as a solution to the county's poverty and employment problems. A study by [10], also established that up to 50% of the SMEs in operation have a deteriorating performance and are said to stagnate at "Small" level, hence do not progressively grow into medium or even large enterprise as envisaged in their conceptual plans.. Some of the most important internal problems identified by [11] which contributes to SMEs failure are inadequate Capital, Cash Flow Management, Receivables Management and Inventory Control.

1.2 Problem Statement

In Machakos Sub-County, Kenya, data available from the County Registrar of Business Office, Ministry of Industrialization and Enterprise Development, indicates that more than 96% of registered companies in 2013 are Small and Medium Enterprises. This target group is identified as the catalyst for the economic development in the county. However, this data also shows that more than three out of five newly registered SMEs yearly, close business operations within the first three years of business operation, this is because this sector has continued to face challenges; among them lack of proper financial management practices. This observation agrees with [16] study which established that lack of proper working capital management practices as the most important reason for business closures in Kenya. Therefore, the purpose of this study is to assess the influence of working capital

management practices on financial performance of SMEs in Machakos Sub-County, Kenya.

1.3 Research Objectives

The specific objectives of this study are:

- (i) To assess the influence of Cash Management Practices on Financial Performance of SMEs in Machakos Sub-County, Kenya.
- (ii) To determine the influence of Receivables Management Practices on Financial Performance of SMEs in Machakos Sub-county County, Kenya.
- (iii) To analyze the extent to which Inventory Management Practices influences Financial Performance of SMEs in Machakos Sub-County, Kenya.

1.4 Significance of this Research Study

The findings of this study if adopted will assist all stakeholders, especially, owner/managers, county and national governments and scholars. This study will help owners/managers of the SMEs to appreciate the relevance of efficient working capital management practices.

1.5 Limitations of the Study

The study limited itself to only SMEs in Machakos Sub-County, Kenya, registered by the year 2009, with the County Registrar of Business, Ministry of Industrialization and Enterprise Development. For a more conclusive result, all SMEs in all counties in Kenya should have been studied. However this was not possible due to financial shortages and other constraints such as time and accessibility. It was not possible to cover the opinions of all SMEs Owners/Managers in Machakos Sub-County, because tracing them would have required considerable time, resources and other logistics. Also there was a limitation due to the use of questionnaire, interview and observation of owners/ managers as data collection tools, ignoring other stakeholders like the workers who actually do work in SMEs; customers and suppliers.

2. Literature review

2.1 Theoretical Literature

Searching for a definition of Small and Medium Enterprises (SMEs) can be frustrating for there are as many definitions as there are authors on this subject. Over the years there have been many attempts at defining what constitutes Small and Medium Enterprises. Researchers and policy makers have used a variety of criteria including; total worth; relative size within the industry, number of employees, value of products, annual sales or receipts and net worth [1]. Therefore the benchmarks vary considerably. Research study by [6], defined Small and Medium Enterprises as enterprises having less than 50 employees as recommended by the African Development Bank. This study will define SMEs as those firms employing less than 20 workers with an investment of Ksh.200, 000 to Ksh.2000, 000, excluding land and buildings.

Medium and Small companies tend to have relatively larger amount of capital tied in Current Assets and Liabilities than Large Companies [7]. In a study of Spanish SMEs, it was discovered that Current Assets comprise 69% and Current Liabilities over 52% of total assets and liabilities [25]. WCM involves the planning and controlling of Current Assets and Liabilities in a manner that eliminates the risk of inability to meet short-term obligations and avoid excessive investments in these assets [45]. Reference [7] has argued that inadequate planning and control of WC are one of the main causes of business failures.

The objective of WCM is to maintain the level of net capital that maximizes the owner's wealth, in the firm [42]. Owners wealth maximization or profit maximization theory assumes that efficient working capital management under competitive market conditions, results into profitability, which is considered as the most appropriate measure of a firm's performance [54]. According to [6] there is evidence that many SMEs are not good at managing their working capital and this has been cited as a major cause of their high failure rate compared with that of large business.

In this study, the researcher used Cash Conversion Cycle and Economic Order Quantity Models in studying the influence of working capital management practices on financial performance of SMEs in Machakos sub-county.

Cash Conversion Cycle (CCC) is a model that expresses the length of time in days, that it takes a firm to convert resource inputs into cash flows [7]. The Cash Conversion Cycle attempts to measure the amount of time each net input in shillings is tied up in the production and sales process before it is converted into cash through sales to the customers (Charterjee, 2010). Cash conversion cycle (CCC) is a popular measure of working capital management, Deloof (2003) for example, found that, the longer the time lag, the larger the investment in working capital.

2.2 Empirical Literature

To test the relationship between working capital management and corporate profitability [15] used a sample of Belgian firms for a period of 1992 – 1996. By using correlation and regression tests, he found significant negative relationship, between gross operating income and receivables management, inventory management and cash management practices of Belgian firms.

Reference [17] empirically examined the relationship between profitability and liquidity as measured by current ratio and cash conversion cycle on a sample of 929 firms in Saudi Arabia. Using correlation and regression analysis, he found significant negative relationship between the firm's profitability and its liquidity level as measured by liquidity ratio.

Reference [58] studied the effect of different variables of working capital management on the operating profitability of firms listed on Pakistani Stock Exchange. They selected a sample of 94 Pakistani firms in Karachi city for a period of six years from 1999 – 2004 and found a strong negative relationship between variables of working capital management and profitability of the firm. They found out that as the cash conversion cycle increases, it leads to decreasing profitability of the firm; therefore they suggest that managers can create a positive value for the shareholders by reducing the cash conversion cycle to a possible minimum

level.

Reference [65] researched on the relationship between working capital management and financial performance of Indian firms, using a sample of 58,985 firms covering the period of 1975 – 1994. The standard measure of working capital management is the cash conversion cycle. They examined this relationship by using correlation and regression analysis. They found a strong negative relationship between the length of cash conversion cycle and financial performance as measured by growth in sales, net income and market share.

Reference [25] examined the effects of working capital management on SMEs profitability on a sample of 8,872 small and medium enterprises in Spain covering the period of 1996 – 2002. Using correlation and regression analysis they demonstrated that managers could create value for their firms by efficient management of cash, receivables and inventories.

Reference [59] analyzed the impact of working capital management on firms' performance in a sample of 204 firms listed on Pakistani Stock Exchange for the period 1998 – 2007. They used Pearson and Spearman's correlations and the results indicate that cash conversion cycle and inventory turnover in days are significantly affecting the firm's performance.

Reference [64] examined the effect of working capital on profitability of a sample of 263 Indian firms listed at Bombay stock exchange from 2000 to 2008, using multiple regressions. The results revealed that working capital management practices and profitability is positively correlated in Indian firms.

Reference [50] examined the implications of a firm's working capital on its profitability. The study focused on a sample of 12 firms quoted on the Nigeria stock exchange over five years period 2002 – 2006 using both Pearson correlation and regression techniques, they observed that the shorter cash conversion cycle promotes high corporate profitability, therefore, they suggested that firms should formulate and follow a policy that encourages credit customers to pay their debts the shortest possible time.

Reference [48] examined the effect of working capital management practices on the financial performance of small scale enterprises (SSEs) in Kisii South District using a sample of 113 SSEs. They used Pearson's correlation co-efficients and multiple regression analysis techniques to analyze data. The findings of the study were that working capital management practices were low amongst SSEs as majority had not adopted formal working capital routines and their financial performance was positively related to efficiency of cash management, (ECM) efficiency of receivables management (ERM) and efficiency of inventory management (EIM).

2.3 Conceptual Framework

Based on the literature under review the researcher has conceptualized the model variables interrelationship as shown in figure 2.1. The model hypothesizes that efficiency in working capital management practices as measured by efficiency in cash management, efficiency in receivables management and efficiency in inventory management has an influence on financial performance of SMEs, as proxied by the growth in sales.

Independent variables (WCMP)

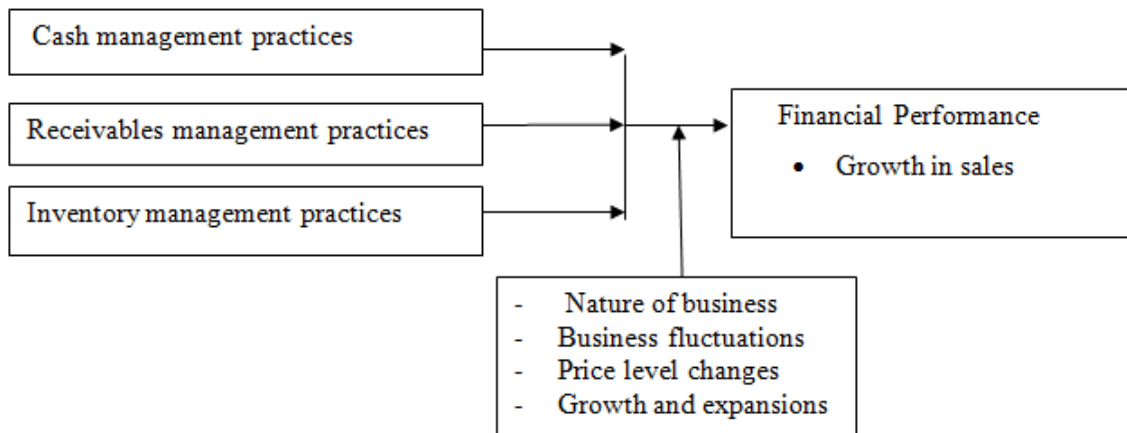


Figure No. 2.1: Conceptual Framework for the research

Source: Researcher, (2015)

Dependent variable

Moderating variables

3. Research methodology

3.1 Research Design

This study adopted a cross-sectional survey design, centered on working capital management practices. Cross-sectional survey is a study in which a population is sampled and studied over the course of only a single contact period by the use of, one survey, one questionnaire or one observation. [46] studied working capital management practices of SSEs in six towns in the central Region of Ghana, using cross-sectional survey design, in which he obtained faster and efficient results, In this current study, the researcher preferred this design since it provides a quick, efficient and accurate means of accessing information about the population and is appropriate where there is lack of secondary data, as it is the case of SMEs of Machakos sub-county.

3.2 Target Population

The target population of this study was 159 owners/ managers of trading SMEs operating and registered by the year 2009, within Machakos Sub- County. All SMEs are privately owned and registered with the County Registrar of Business, Ministry of Industrialization and Enterprise Development for the period 2011-2015, (Government of Machakos County).

3.3 Sample size and Sampling Technique

According to [49] the sample size should neither be excessively large nor too small, it should be optimal. As a result 20% of 159 SMEs, that is 32, trading SMEs were selected by random sampling technique to constitute the study sample, from the following five areas of Machakos town: Machakos Kitui Road 6, Machakos Kangundo Road 6, Ngei Road 7, Syokimau Avenue 7, and Wote Road 6. The principal factor that influenced the selection of the five areas was their nature of business.

3.4 Data Collection Procedures and Research Instrument

The questionnaire eliciting the details of working capital management practices were dropped physically at the owners/managers offices of the 32- SMEs selected randomly. The respondents of this study were owners/managers. The accompanying letter requested an interview or telephone conversation; because most of the respondent's do not have financial background, the researcher had to explain most of the technical terms to help in obtaining the appropriate responses. Also to prevent the situation whereby some of the respondents (Owners/Managers) may try to hide information, the researcher visited each and examined the documents requested for. The coding technique was only used for the matching purpose of the returned completed questionnaires with those delivered to the respondents.

3.5 Data Analysis

The data collected were quantitative and it was analyzed by descriptive statistics: weighted average, mean and standard deviation. Correlation and multiple regression analysis were used to measure the relationship between Working Capital Management Practices and Financial Performance of SMEs in Machakos Sub-County. The Financial Performance Model that was adopted for this study is as summarized below:

$$FP = \beta_0 + \beta_1 ECM + \beta_2 EIM + \beta_3 ERM + e,$$

Where, FP= indicator,

$\beta_0, \beta_1, \beta_2 \& \beta_3$ = Coefficients,

EMC = Efficiency in Cash Management

EIM = Efficiency in Inventory Management

ERM = Efficiency in Receivables Management and

e = Error Variable.

4. Data analysis, results and discussion

4.1 Cash Management Practices and SMEs Financial Performance

The first objective of this study was to assess the influence of cash management practices on financial

performance of SMEs in Machakos Sub-County, Kenya. The results are shown in tables below:

Table No. 4.2: Frequency of occurrence of Cash Management Practices

Cash Management Practices Σ fi	Scores					Σ fi	Σ fiwi	Σ fiwi
	1	2	3	4	5			
Preparation of cash 2.50	5	8	4	3	2	22	55	
Budget	22.73%	36.36%	18.19%	13.63%	9.09%	100%		
Determination of 8 Target cash balances	7	4	2	1	22	47	2.14	
	36.36%	31.82%	18.19%	9.09%	4.54%	100%		
Occurrence of cash Shortages	2	11	8	1	0	22	52	2.36
	9.09%	50.00%	36.36%	4.55%	0.00%	100%		
Occurrence of cash Surpluses	2	4	3	5	8	22	79	3.59
	9.09%	18.18%	13.64%	22.73%	36.36%	100%		

The analysis is based on the scores scales:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Undecided
- 4 - Agree
- 5 - Strongly agree

Sources: Survey data 2015

Table No. 4.3: Investment of temporary cash surplus

Cash surplus Total	Bank	Financial	Business	No. cash	Nowhere	
Investment	Deposit	Market	Expansion	surpluses		
Frequency	10	1	6	3	2	22
	45.45%	4.55%	27.27%	13.64%	9.09%	100%

Source: Survey data 2015

The study on Cash Management Practices focused on the frequency of cash budgeting, target cash balance determination, occurrence of cash surpluses, cash shortages and investment of cash surpluses.

On the frequency of preparation of cash budget, the findings are as indicated in Table No. 4.2. On the average SMEs' owners/Managers prepared cash budget; weighted average = 2.50. The majority of respondents (13 respondents representing 59.09% of all respondents) rarely prepared cash budgets (score 1 and 2) on the scale. Only 5, SMEs, representing 22.72% of all SMEs often prepared cash budgets (Score 4 and 5) on the scale. This finding indicates that SMEs in Machakos Sub-county did not embrace cash budgeting as a tool to plan and control cash flows of the businesses, contradictory views were expressed by [42] who established that over 56.23% of the SMEs studied prepared cash budgets on daily basis and used them to plan for shortage and surplus of cash.

On the frequency of determination of target cash balances, the results of the study is as indicated in Table No. 4.2, indicating that on average 3 SMEs, representing 13.63% of the SMEs indicated that they often determined their cash balances; (scores 4 and 5) on the scale as compared to 68.18% who indicated that they hardly determined their target cash balance (score 1 and 2) on the scale. These results imply that on average, majority of the SMEs rarely determined the appropriate amount of cash to hold in hand. These findings is in agreement with the pronouncements by [48] who established that small firms rarely pay attention to setting up a cash policy, but simply consider cash balance in hand as a result of differences in cash inflows and outflows without any guidelines.

On how regularly SMEs experienced cash surpluses as compared to cash shortages Table No. 4.2 indicated that on average SMEs experienced cash surpluses regularly and experienced cash shortages irregularly as indicated by their weighted averages of 3.59 and 2.36 respectively. The majority of the SMEs; (13 representing 59.09% of all the SMEs) regularly experienced cash surpluses compared to only 1, representing 4.55% of all SMEs that experienced cash shortages regularly (score 4 and 5) on the scale. This finding supports the assertion by [62] that established that small firms reserve cash and maintain relatively high current ratios to ensure that they do not run out of cash, therefore, the conclusion that the management of cash surpluses rather than cash shortages is a problem for SMEs.

Table No. 4.3, indicates that 45.45% of all the SMEs studied, experienced cash surpluses reported that they deposited it in bank accounts for earning interest, while 9.09% reported that they had it lying idle in the business office safe locker. This implies that up to 54.54% of the SMEs did not invest temporary Cash surpluses for meaningful interest earnings. This finding is in agreement with [48] which established that majority of the small firms do not invest their cash surpluses in marketable securities.

4.2 Receivables Management Practices and SMEs Financial Performance

The second objective of this study was to determine the influence of receivables management practices on financial performance of SMEs in Machakos Sub-County, Kenya. The results are as shown in the table below:

Table No.4.4: Frequency of occurrence of Receivables Management Practices

Receivables Management Practices	Scores					Σfi	$\Sigma fiwi$	$\Sigma fiwi$
	1	2	3	4	5			
Sales on credit	1	2	11	5	3	22	73	3.31
		4.55%	9.09%	50%	22.72%	36.36%	100%	
Credit guidelines for customers	4	9	5	3	1	22	44	2.00
		18.18%	40.90%	22.73%	13.64%	4.55%	100%	
Review of levels of Receivables	2	3	15	1	1	22	62	2.81
		9.09%	13.63%	68.81%	4.55%	4.55%	100%	
Review of levels of Bad debts	2	3	15	1	1	22	62	2.81
		9.09%	13.63%	68.81%	4.55%	4.55%	100%	

The analysis is based on the scores scales:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Undecided
- 4 - Agree
- 5 - Strongly agree

Source: Survey data 2015

On receivable management practices, respondents were asked whether they make credit sales, they put down credit guidelines for their customers and frequency of review of the levels of receivables and bad debts.

On the analysis of response on how frequently SMEs owners/managers sold their products on credit Table No. 4.4 indicates that only 8 SMEs representing 36.36% of all SMEs often sold their products on credit was

averagely practiced by SMEs in Machakos sub- county. This is contrary to the findings by [42] which showed that small businesses always sold their products on credit. The low use of credit sales can be attributed to the lack of sound policies since majority (14 SMEs representing 63.63% of the SMEs) seem not to set credit guidelines for their credit customers. As established by [44] pursuing reduced receivables account, causes diminished financial performance for firms.

On the frequency of review of the levels of receivables and bad debts, Table No.4.4 shows that a substantial number of respondents (15 SMEs which represents 68.18% of all SMEs) reviewed their levels of receivable and bad debts regularly. This finding is at variance with [42] finding that most small scale businesses review their levels of receivables and bad debts irregularly.

4.3 Inventory Management Practices and SMEs Financial Performance

The third objective of this study was to analyze the extent to which inventory management practices influence financial performance of SMEs in Machakos Sub-County, Kenya.

On inventory management practices, the respondents, were asked how frequently they prepared inventory budgets, reviewed their inventory levels and the basis on which they determined their inventory levels and their frequency of inventory replacement. The results are as shown in the tables below:

Table No. 4.5: Frequency on Inventory Management Practices

Inventory Management Practices	Scores					Σ fi	Σ fiwi	Σ fiwi / Σ fi
	1	2	3	4	5			
Preparation of Inventory budgets	2	2	5	8	6	22	81	3.68
	9.09%	4.55%	22.73%	36.36%	27.27%	100%		
Review of Inventory levels	1	2	4	9	6	22	83	3.77
	4.55%	9.09%	18.18%	40.91%	27.27%	100%		

The analysis is based on the scores scales:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Undecided

4 - Agree

5 - Strongly agree

Source: Survey data 2015

Table No.4.6: Basis of Determining Inventory levels

Parameter	No. of items	Percentage
Based on theories of inventory management	1	4.55%
Based on Historical data	2	9.09%
Based on owner's / Manager experience	16	72.73%
Never determines inventory levels	3	13.63%
Total	22	100%

Source: Survey data 2015

Table No.4.7: Frequency of Inventory Replacement Orders

Frequency	Yearly	Monthly	After 2 wks	Weekly	Daily	Σfi	$\Sigma fiwi$	$\Sigma fiwi^2$
Σfi	1	2	3	4	5			
No. of Item	0	3	10	6	3	22	75	3.14
	0%	13.64%	45.45%	27.27%	13.64%	100%		

Source: Survey data 2015

Table No. 4.5 indicates that majority of the SMEs, (14 SMEs representing 63.63% and 15 SMEs representing 68.18% of all the SMEs) often prepared inventory budgets and reviewed inventory levels respectively, (Score 4 and 5 on the scale). These findings imply that preparation of inventory levels are regularly carried out by SMEs owners/managers, and are in agreement with [42], that enhancing the management of inventory enables the business to avoid tying up excess capital in idle stock at the expense of profitable ventures. Though the SMEs of Machakos sub- county regularly prepared inventory budgets and reviewed their inventory levels regularly, Table No.4.6 shows that the ability to apply the theories of inventory management to determine inventory levels is very limited with a substantial number of SMEs (16 respondents representing 72.73% of all SMEs) indicated

that they determined their inventory levels on the basis of owner’s/Manager’s experience. A study by [42] established similar results which showed that up to 90% of owner’s/ Manager’s experience counted a lot in the management of working capital. The findings that majority of SMEs determined their inventory levels on the basis of owner’s/Manager’s experience, could be the basis for the findings in Table No.4.7; that 19 SMEs representing 86.36%, regularly replenished their inventories (Score 3, 4 and 5 on the scale), an indication that majority of the SMEs in Machakos sub-county do not stock optimal quantities of inventory and do not determine appropriate re-order levels or points.

4.5 Efficiency of Working Capital Management Practice

Table No. 4.8: Mean and Standard Deviations for Indexed EWCM Variables

Variables	Number of	Mean Standard	Minimum	Maximum
	Items	Deviation		
Efficient Cash	22	14.7491	3.4872	7 20
Management Practice				
Efficient Receivable	22	15.3381	3.3204	7 20
Management Practice				
Efficient Inventory	22	22.523	5.4414	10 32
Management Practice				

Source: Survey data 2015

On the efficiency of working capital Management Practices Table No.4.8 indicates that efficiency in cash management rated the lowest on average with a mean index of 14.7491 with responses deviating from this mean by a standard margin of 3.4872. This was followed by receivable management practices with the mean of 15.3381, with a standard deviation of 3.3204, and inventory management practices with the mean of 22.523 and standard deviation of 5.4414 in that order. This ordering could be interpreted to mean that SMEs in Machakos Sub- County were more efficient in the management of inventory. Conversely they were less efficient in the management of their cash. On average, the efficiency levels were low, thus indicating that majority of the SMEs have not embraced capital management practices in their business operations. These results collaborate with assertions by [48,42,55] that small firms are not good in the management of their working capital.

4.8 Financial Performance of the SMEs

On the financial performance of the SMEs, respondents were asked to rate their perceived extent of growth in their businesses’ sales, total assets, net income and market share. The results are shown in the tables below:

Table No.4.9: Respondents' perception on the extent of growth of financial performance Indicators

Financial							Σfi	$\Sigma fiwi$	$\Sigma fiwi$
Performance	Scores					Σfi			
Indicators	1	2	3	4	5				
Growth in total	2	7	9	3	1	22	60	2.72	
Sales	9.09%	31.82%	40.91%	13.64%	4.45%	100%			
Growth in total	3	6	8	3	2	22	61	2.77	
Assets	13.64%	27.27%	36.36%	13.64%	9.09%	100%			
Growth in net	2	6	10	4	1	22	46	2.09	
Income	9.09%	13.63%	68.81%	4.55%	4.55%	100%			
Growth in market	1	6	9	4	2	22	66	3.00	
Share	4.55%	22.27%	40.91%	18.18%	9.09%	100%			

The analysis is based on the scores scales:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Undecided
- 4 - Agree
- 5 - Strongly agree

Source: Survey data 2015

Table No.4.10: Descriptive statistics for Financial Performance

Variables	No. of Items	Mean	Standard	Minimum	Maximum
Deviation					
Financial	22	9.323	1.75386	5	12
Performance					

Source: Survey data 2015

Table No. 4.9, indicates that on the average the extent of growth of sales, total assets, net income and market share was moderate and had weighted average of 2.72,2.77,2.09 and 3.00 respectively. However as indicated in Table No.4.9 a greater number of SMEs had a growth rate that could be considered low (score 1 and 2 on the scale) as compared to the number of SMEs whose growth rate could be considered high (score 4 and 5 on the scale). The various ratings of the extent of growth of each financial performance indicator were summed up to obtain a single financial performance index which ranged from 3 lowest, to 16 highest. The higher the points a business scored, the higher its financial performance was. Table No.4.10 shows the descriptive statistics for financial performance of SMEs. The result shows that financial performance from value 5 lowest to value 12 maximum. These results also show an average of financial performance of 9.3236, with the scores deviating from the mean score by 1.75386. This average score is less than 10; hence the performance of SMEs in Machakos sub- County was on a low average, similar results were established by [48,10] who established that over 50.9% of the SMEs studied reported a failing financial performance.

4.9 The Relationship between Working Capital Management Practices and Financial Performance

Table No.4.11: Regression coefficients and collinearity statistics (N= 22)

Model	Unstandardized		Standard	t	Sig	Collinearity	
	Coefficients					coefficients	Statistics
	β	Std Error	beta	Tolerance	VIF		
1 (constant)	2.9744	0.499			4.7672	0.000	
Efficient of cash Management	0.0976	0.027	0.211	2.916	0.000	0.446	1.437
Efficiency of Receivable Management	0.0614	0.031	0.126	1.588	0.000	0.437	1.466
Efficiency of Inventory Management	0.1200	0.018	0.404	5.128	0.000	0.525	1.219

Predictors (constant); efficient cash management, efficient receivables management, efficient inventory management.

Dependent variable: financial performance.

Source: Survey data 2015

Table No. 4.12: Model summary (N=22)

R	R ²	Adjusted R ²	Std Error of estimate	Change statistics				
				R ² Change	F change	df1	df2	sig of change
0.637	0.507	0.499	1.0893	0.50748	9.989	2	85	0.000

- a) Predictor (constant): Efficient cash management, efficient receivables management, efficient inventory management.
- b) Dependant variable: Financial performance.

Source: Survey 2015

On the relationship between working capital management and financial performance, Pearson’s correlation coefficients and multiple regression analysis techniques were used to address this objective. Before the correlation and regression procedures were carried out, the basic assumptions of multiple regression analysis were verified and they were satisfactorily met as follows; the concern for multicoli-nearity was tested by observing the variance inflation factors (VIF’s) subject to the rule of thumb that the number should be less than 10 [66]. All the VIFs entries as shown in Table No.4.11were adequately low hence the possibility of multicollinearity did not exist. The normality of the dependent variable was checked by the use of normal probability plots (Histo-gram and normal P-P. Plot) which both indicated that the residuals were normally distributed. The test for the linearity assumption was done by the use of scatter plots and none of the plots demonstrated a non linear pattern. Constant variance (homoscedasticity) assumption was checked by virtual examination of a plot of the standardized residuals (the errors) by the regression standardized predicted value. The residuals were randomly scattered around O (the horizontal line) providing a relatively even distributing and hence no violations of homoscedasticity were detected.

4.10 Pearson’s Correlation Coefficient Results

The person’s correlation results as indicated in Table No.4.13, shows that there was a strong positive relationship between SMEs financial performance and efficient cash management (R= 0.4896, F.P< 0.01). Also a strong positive relationship was established between financial performance and efficient Receivables management (R= 0.4936, F.P< 0.01).On the other hand, a very strong positive relationship was established between Financial Performance and Efficient Inventory Management (R=0.5936,FP<0.01).

4.11 Multiple Regression Analysis

The multiple regression analysis was used to deduce a model that could be used to explain the influence of working capital management practices on financial performance of SMEs. Table No. 4.11 indicates the

contribution of each variable in explaining financial performance as shown by standardized beta values which assess the contribution of each variable towards the prediction of the dependant variable.

Table No.4.13: Correlation Results (N=22)

Parameter	Variables	F.P	ECM	ERM	EIM
Spearman's Rho	F.P	correlation coefficient 1.000 Sig (2 tailed)			
	ECM	correlation coefficient 0.4896* Sig (2 tailed)	1.000 0.000		
	ERM	correlation coefficient 0.4936* Sig (2 tailed)	0.4288 0.000	1.000 0.000	
	EIM	correlation coefficient 0.5936* Sig (2 tailed)	0.4176 0.000	0.5032 0.000	1.000 0.000

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

Source: Survey data 2015

Efficiency in Inventory management had the highest influence on financial performance with a unit change in the ECM, holding ERM constant, resulting to a 40.4% increase in financial performance, while Efficiency in Receivables management had the least influence with a unit change in ERM, holding ECM and EIM constant, resulting to a 12.60% increase in financial performance. The overall equation as suggested in the conceptual framework can be represented as under:-

$$F.P = 2.9744 + 0.0976 \text{ ECM} + 0.06136 \text{ ERM} + 0.1200 \text{ EIM}$$

This implies that even without the three variables under study, financial performance is expected to be 2.9744.

Table No.4.12, summarizes the regression model $R^2 = 0.507$ shows 50.7% of the variability of financial performance could be attributed to changes in Efficiency of Cash Management, Efficiency of Receivables Management and Efficiency in Inventory Management practices. Comparing the value of R^2 and adjusted R^2 gives a difference of 0.008 which is too small. This indicates that validity of the model is very good since its shrinkage is less than the 0.5 threshold suggested by Field (2005).

Table No. 4.12, indicates the F- statistics which indicates that the set of independent variables were as a whole contributing to the variance in the dependant variable and that there was statistically significant relationship between Financial Performance and the set of predictor variables (ECM,ERM and EIM) as shown by its F- statistic (FP =48.989, $FP < 0.04$).

These findings indicate that there is a relatively high support for the existence of a positive significant relationship between financial performance and working capital management practices. Generally many researchers have established a positive relationship between efficiency in Working Capital Management Practices and business performance, ([41,53,45,42,55]). Moreover, based on the findings of this study the central role of working capital management to the success of SMEs has been demonstrated by the empirical data from SMEs in Machakos sub- county Kenya. The data analysis indicated that those businesses whose owners / managers were more efficient in managing working capital elements had a higher financial performance; hence emphasizing the pronouncement that efficient working capital management is an indispensable component for the success of SMEs. These findings also reinforce the establishment by [15] which showed that the way working capital is managed has a significant influence on the overall performance of a business.

5. Summary, conclusion and recommendations

5.1 Summary of Findings

This study aimed at establishing the influence of working capital management practices on financial performance of SMEs in Machakos sub-county, Kenya. The study design was cross-sectional survey, centered on working capital management practices, and it used structured questionnaire and interview methods to collect primary data.

The population was 159 SMEs operating and registered by the year 2009 within Machakos Sub-County, with the county registrar of Businesses, Ministry of industrialization and enterprise development. The respondents who are the owners / managers of the SMEs were selected randomly. The questionnaire was distributed to 32 respondents and 22 returned, yielding a 68.75% response rate. Majority of the respondents (45.45%) were in the 36-45 year age bracket, (31.82%) were in the 46-55 year age bracket, and (22.73%) were in the over 55 year age bracket. Age bracket 18-25 and 26-35 had no response, an indication that many youths in Machakos sub-county do not own or manage SMEs. Majority of the respondents (45.45%) had secondary education, while (27.27%) had diploma education, (9.1%) graduate, (4.54%), (postgraduate and (13.64%) others. This indicates that there is need for professional training in management for the owners / managers of SMEs, in order to improve performance of SMEs in general.

5.2 Conclusion

The study established that majority of the SMEs in Machakos Sub-County were not good in managing their working capital. This was revealed by their low weighted averages or means of efficiency levels in cash, receivables and inventory management practices. Owners experience was found more important than such theories as economic order quantity and cash conversation cycle. On this premise this study concludes that working capital management might be the cause of small and medium enterprises failure in Machakos Sub-County, this collaborates to a greater extend with previous studies which indicated that careless working capital management practices is a major cause of SMEs failure [55].

5.3 Recommendations

5.3.1: Cash Management

Based on the establishment of the fact that majority of SMEs in Machakos Sub-County experienced surplus cash regularly the researcher suggests that surplus cash should be invested in overnight call account which yields high interest returns.

5.3.2 Inventory Management

Based on the establishment that efficient inventory management practices had the greatest influence on financial performance as indicated by its largest mean and standard statistics, this researcher suggests that SMEs should pay more attention to the management of inventory since it has a larger influence on financial performance of SMEs. This study, therefore suggests that SMEs should ensure that stocks are sufficient to meet customer demands at all times while at the same time avoiding holding unnecessary surplus stocks that may increase stock holding costs.

5.3.3 Receivables Management

On receivables management practices, this study established the fact that a few of all SMEs under the study sold their products on credit. The low use of credit sales was attributed to the lack of sound credit policies, since 63.63% of all SMEs studied had not set credit guidelines for their customers. Based on this fact this researcher suggests that SMEs in Machakos Sub-County should establish credit control department or section with a full-time responsible officer as already suggested above under inventory management.

5.3.4 Training and Education

Based on the establishment of the fact that majority of the owners/managers of SMEs in Machakos Sub-County had secondary level of education and financial performance of SMEs had a low average due to inefficient of working capital management practices, this study suggests that the small and medium enterprises sector needs effective and dynamic management skills in order to be successful.

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