

INVENTORY MANAGEMENT PRACTICES AND FINANCIAL PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN LAIKIPIA COUNTY, KENYA

Jeremiah Nyaga Wanjira

Department of Accounting and Finance, Kenyatta University, Kenya

Dr. John Mungai Njagiru

Department of Accounting and Finance, Kenyatta University, Kenya

©2018

International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366

Received: 25th August 2018

Accepted: 9th September 2018

Full Length Research

Available Online at:

http://www.iajournals.org/articles/iajef_v3_i2_117_132.pdf

Citation: Wanjira, J. N. & Njagiru, J. M. (2018). Inventory management practices and financial performance of small and medium scale enterprises in Laikipia County, Kenya. *International Academic Journal of Economics and Finance*, 3(2), 117-132

ABSTRACT

Despite the instrumental role that they play in the economy, most SMEs fail within their first years of operation. Poor working inventory management practices is identified underlined as among the principal causes of SMEs failure. This is particularly so for the lack a formal inventory management system, as they, in most cases rely on subjective inventory management decisions. Most researchers and theorists postulate that the manner by which inventory is managed considerably impacts on profitability and risk of firms. The study focused on the effect of inventory management practices on financial performance SMEs in Laikipia County, Kenya. The period considered was between financial years 2013/2014 and 2015/2016. The study specifically assessed the effect of inventory management on financial performance. Performance was indicated through profitability indicators i.e. return on investment (ROI) and profitability in relation to turnover (Net Profit Margin). The study relied on a target population of 765 SMEs with operations in Laikipia County as gathered from the National Chamber of Commerce and Industry (2017). A combination of proportionate random sampling technique and purposive sampling was employed to attain at a sample size of 100 business owners from 100 SMEs selected. The study used primary and secondary data. Primary data was collected using questionnaires managed by the drop and pick method. The instruments were tested

for validity and reliability using pretesting, seeking expert opinion and using Cronbach's Alpha Reliability test. Secondary data was gathered from the SMEs books of accounts, management reports and other available resources. The researcher made use of the Statistical Package for Social Scientists (SPSS) for analysis. The study used both descriptive and inferential statistics generated using bivariate and multivariate analysis to test the hypothesis. The results indicated that SMEs' financial performance as indicated by the profitability metrics namely return on assets and net profit margins was considerably low. As explained by R Square, the Coefficient of Determination, 75.50% of the variation in the Financial Performance (the dependent variable) is explained by variability in inventory management. To that effect, only 24.50% of variation in the financial performance was explained by other predictors not included in the model. Regression analysis results demonstrated that inventory management had positive effects on performance. The Pearson Correlation Analysis results indicated positive and statistically significant association between inventory management and financial performance. The study recommended pursuit of measures to improve the model of inventory management implemented by small scale firms.

Key Words: *inventory management practices, financial performance, small and medium scale enterprises, Laikipia County, Kenya*

INTRODUCTION

SMEs play a critical role to global, regional and local economies. World over, SMEs have continued to support billions of lives through direct and indirect employment especially in the developing nations. As reported by World Bank (2015), formal SMEs contribute up to 60% of total employment. They also back up to 40% of national income in developing economies, a number that further increases significantly when informal SMEs are included. The report underlines the growing importance of the SMEs sector in aiding match to job creations especially in Sub-Saharan Africa. Regionally, as Africa hits the billionth person mark, a similar case is highlighted with SMEs expected to play a critical role to growth of economies to support growing populations (Sanders, 2011).

According to a report by the Kenya Private Sector Alliance (2017), notwithstanding their great significance to the Kenyan economy contributing over three quarters of the GDP, about half of the total workforce and roughly a quarter of all business enterprises, Small and Medium Scale Enterprises (MSMEs) continue to grapple with a mountain of challenges which has continued to hurt their financial performance. Bowen, Morara and Mureithi (2009) reports that three out of five SMEs fail in their first years of operation. A report by the Kenya National Bureau of Statistics (2016) also indicates that about half a million small enterprises in Kenya die annually with a total of 2.2 million MSMEs subsiding for the period between 2012 and 2016. This demonstrates the magnitude of the challenges bedevilling this class of business organisations. Agyei-Mensah (2010) lists poor inventory management practices as among the principal causes of MSMEs failure observing that most SMEs lack a formal working capital management system, therefore relying on subjective working capital management decisions (Howorth and Westhead, 2003).

According to Bhattacharya (2004), working capital management is concerned with maintenance of efficient levels of current assets and current liabilities. According to Bhalla (2010), management of working capital is critical as it plays a critical role in the determination of an organization's performance direction. Mathew (2007) observes that greater investment in current assets leads to lower risk in settling short term obligations but on the same time leads to lower profitability.

As a guiding premise, WCM essentially involve a tradeoff between profitability and risk. As such, investment decisions seeking to boost profitability would be expected to also increase risk levels. On the converse, risk reduction choices would also reduce prospective profitability of firms. Singh (2008) observes that organizations that build a stable working capital framework are able to boost their earning potential. Preve and Sarria-Allende (2010) adds that a prudent WCM system helps in boosting not only liquidity but also earning capabilities of firms.

Performance of Small and Medium Scale Enterprises

Performance is a broad concept in corporate discussions that refers to the extent to which a firm meets its objectives, goals, targets or the level to which it gears itself towards the

organisational vision. Financial performance is concerned efficiency in asset utilisations to generate revenue. At the epicentre of the concept of financial performance is the objective to ensure a firm's overall financial health to boost the going concern status (Penman & Penman, 2007).

Scholars and Practitioners alike have argued a case in support of financial ratios in measurement of financial health or wellbeing of corporate entities. The ratios have been classified into many categories which include profitability ratios, efficiency ratios, gearing ratios, liquidity ratios and solvency ratios. With regard to profitability which is the main focus of the study ratios such as Earnings per Share (EPS), Net Profit Margin, Gross Profit Margin, Return on Equity (ROE), Return on Capital Employed (ROCE), Return on Assets (ROA) or Return on Investment (ROI) and Tobin's Q have been used. The computation and interpretation of financial ratios require a thorough and objective analysis of financial statements and notes. The study at hand will utilise the Return on Investment (ROI) and Net Profit Margin as profitability measures to explain financial performance.

According to Ayyagari et al., (2007), the SMEs sector in Kenya makes up 98 percent of all businesses in the country and absorbs 50 per cent of new employment seekers annually. The MSMEs sector contributes over three quarters of the Gross Domestic Product (GDP) according to the Kenya Private Sector Alliance (2017). The sector therefore plays an indispensable role towards the realization of Kenya's Vision 2030. The Kenyan Government has in its official development policies recognized the SMEs sector as a key player to national development and has as and has put forth an elaborate and strictly monitored framework to foster its growth (Ronge, Ndirangu, & Nyangito, 2002).

Inventory Management Practices

Involves control of stock levels and standards which includes control of ordering, storage, loss prevention and control of transaction costs (Zipkin, 2000). Inventory Management is an important corporate function as it's essential to the successful operation in the organizations. This is majorly due to the fact that the amount of money invested in inventory is significant and also that inventories do have a great impact on daily operations of an organization. A viable inventory management system seeks to meet anticipated demand, smoothen production requirements, hedge against price increases, or to take advantage of quantity discounts, decouple components of the production, protect against stock outs, take advantage of order cycles and permit operations.

Laikipia County

Laikipia County is one of the devolved units of governance established by the Constitution of Kenya (2010). It is located on the Equator in the defunct Rift Valley Province of Kenya. It is a largely cosmopolitan county consisting of two major urban centres: Nanyuki to the southeast, and Nyahururu to the southwest with its capital located at Rumuruti. The major economic activities in the county are tourism and agriculture. Laikipia enjoys an industrious and blossoming economy and is home to a total of seven hundred and sixty five (765) small

and medium scale enterprises (SMEs) as gathered from Kenya National Chamber of Commerce and Industry, Laikipia County (2016).

STATEMENT OF THE PROBLEM

According to the Kenya Private Sector Alliance (2017), notwithstanding their great significance to the Kenyan economy contributing over three quarters of the GDP, about half of the total workforce and roughly a quarter of all business enterprises, Small and Medium Scale Enterprises (MSMEs) continue to grapple with a mountain of challenges which has continued to hurt their financial performance. Bowen et al., (2009) reports that three out of five SMEs fail in their first years of operation. A report by the Kenya National Bureau of Statistics (2016) also indicates that about half a million small enterprises in Kenya die annually with a total of 2.2 million MSMEs subsiding for the period between 2012 and 2016. This demonstrates the magnitude of the challenges bedeviling this class of business organisations. Agyei-Mensah (2010) lists poor working capital management practices as among the principal causes of MSMEs failure observing that most SMEs lack a formal working capital management system, therefore relying on subjective working capital management decisions (Howorth & Westhead, 2003). While studies had been done on this area, key gaps remained unresolved which included contextual, empirical, conceptual and methodological gaps. Ndagijimana (2014) examined Working Capital Management for SMEs in Nairobi, Kenya. The study results indicated that accounts payable management, accounts receivable management and cash management were the profound WCM practices implemented by SMEs. Empirical gaps were unveiled on the need to extend the assessment to consider the association between those WCM and financial performance. Njeru, Njeru and Tirimba (2015) studied on Cash Management practices and Financial Performance of SACCOs. The study established that cash management practices positively influence the financial performance of SACCOs. Empirical gaps were unveiled on the need to expand the framework of working capital management variables considered other than cash management. Kiprotich, Wanjare, Joab, and Oluoch (2013) assessed working capital management practices and financial performance. The study targeted sugar cane out grower firms. Findings established poor financial performance of out-grower companies and related the same to weak working capital management framework adopted by the out-grower companies. The study presented methodological gaps on the need to consider more dimensions of financial performance such as profitability indicators. Contextual gaps were also presented on the need to undertake a local study. To address stakeholders concerns and fill the unresolved gaps on the subject, the current study determined the effect of inventory management on financial performance of SMEs in Laikipia County, Kenya.

GENERAL OBJECTIVE

The general objective of the study was to analyze the effect of inventory management on financial performance of Small and Medium Scale enterprises in Laikipia County, Kenya.

HYPOTHESIS OF THE STUDY

H₀: Inventory management has no statistically significant effect on financial performance of small and medium scale enterprises in Lakipia County, Kenya.

THEORETICAL REVIEW

Operating Cycle Theory

The Operating Cycle theory was first developed by Richards and Laughlin (1980) and concerns guidelines on prudent management of working capital in business concerns. The theory is founded on the fundamental proposition that static ratios are inadequate and, at times, may be ambiguous in the assessment of a business's liquidity position. An operating cycle represents the amount of time a firm consumes in acquiring inventory, selling that inventory, and receiving cash from customers in exchange (Hill, 2013). Bhattacharya (2014) contends that the length of a company's operating cycle is dependent on the payment terms extended to clients by the company as well as those extended to the company by its suppliers. As such, if an enterprise has more time to pay its suppliers for inventory, it can shorten its operating cycle by delaying the outlay of cash. Conversely, if the firm's clients are given more time to pay for goods received, the firm's operating cycle is extended. This is principally because the company will have to wait longer to obtain its cash. A shorter operating cycle essentially demonstrates that a firm's cash is held up for a shorter period of time, which according to Ross, Westerfield, and Jordan (2008) is considered more ideal from a cash flow perspective.

Proponents of the theory argue that though receivable and inventory turnover indicators of an operating cycle concept positions users to the essential facet of financial flows, the analysis is incomplete on the fact that the analysis does not consider all relevant financial flows. The payables turnover ratio is thus included in the analysis giving more detailed insights into the study of working capital management and liquidity (Nobanee, 2009). The extension of the analysis of static balance sheet leads to the development of liquidity flow concept. The concept identifies the capability of liquidation coverage of the value including measures of income statement of the operating activity of a business. Clearly, the incorporation of measures of the inventory turnover and accounts receivables into the concept of operating cycle gives a more clear-cut insight of management of liquidity than would be established through solvency indicators such as current and acid taste ratio (Bhattacharya, 2014). The theory was helpful in the assessment of cash management, inventory management, accounts receivables management and accounts payables management and their individual and collective effect on performance of SMEs.

Transaction Cost Economics

The theory was advanced by Williamson (1989) with basic reference to the transaction as the fundamental unit of evaluation. The theory holds that the understanding of controlling transaction costs is key in the examination of business entities. A basic prescriptive is

therefore given that both external transactions between firms and their suppliers and customers as well as internal transactions should be addressed in order to build a viable working capital framework. Methods and systems should be established in the firm to ensure optimal levels of inventory so as to cut the costs involved which would include ordering costs and holding or carrying costs (Tadelis & Williamson, 2012). Ordering costs are costs incurred in the purchase of inventory. Ordering costs may include outlays in preparation of a purchase form, reception, examination and registering the merchandises accepted. The holding cost is essentially the cost of maintaining the stock or inventory in the store. Associated costs include the cost of storing inventory and other opportunity costs. The transaction economics theorists hold that in order to build their competitive advantage, firms should work on strategies to reduce their working capital related costs through application of systems for maintenance of the ordering, holding and opportunity costs of inventory at a lowest levels possible (Emery & Marques, 2011). The theory was very useful in the assessment of working capital management issues and specifically inventory management, accounts payables management, accounts receivables management, and cash management in assessing whether the organisation had well laid strategies to ensure the associated costs are controlled.

Trade-Off Theory of Liquidity

The theory was first developed by Campbell and Kelly (1994) and is built on the basic proposition that organizations aim at an ideal level of liquidity as they seek a trade-off between the advantages and detriments of holding cash. The costs associated with tying too much cash in a firm include low rates of return (Dudley, 2007). Conversely, the merits of holding cash include savings on transaction costs incurred in raising funds for day to day operations and obligations (Lipson & Mortal, 2009). As such, holding cash would be beneficial because firms would have the opportunity to use liquid assets to finance their investments opportunities and operations if other sources of funding are unavailable or extremely costly. The theory principally helped in the assessment of cash management, inventory management, accounts payables management and accounts receivables management as the firms strike a trade-off between the detriment and advantage of holding cash.

EMPIRICAL LITERATURE REVIEW

Juan García-Teruel and Martínez-Solano (2007) analysed working capital management practices and profitability of SMEs. The study adopted a panel study approach and covered a sample of 8,872 SMEs. The span between 1996 and 2002 was considered for analysis. Study results indicated an inverse link between the inventories holding period and performance. Therefore, inventory management practices do influence performance of firms.

Vahid et al. (2012) assessed WCM and performance through an empirical study of Iranian firms. The study specifically targeted 50 firms Listed in Tehran Stock Exchange (TSE). The Net Operating Profitability was used to assess firms' performance. The multiple regression

analysis was used as the main inferential tool guiding the conclusions. Inventory management was found to be a significant predictor of profitability of the firms.

Deloof (2003) undertook a study on working capital management and performance of Belgian firms. The study relied on a sample of 1,009 large Belgian non-financial firms. Profitability was evaluated for the period between 1992 and 1996. The study considered the Inventory policy and management as one of the key variables considered. It was established that holding as less inventories as possible (Optimal level) serves to enhance corporate profitability.

RESEARCH METHODOLOGY

Research Design

According to Bulmberg, Cooper, and Schindler (2011), a research design refers to a statement of the essential components of a study and entails the framework proposed for the collection, measurement and analysis of data. A descriptive survey research design was utilized for purposes of the study at hand. A descriptive research therefore involves the discovery of existing interactions with regard to certain variables without any attempt to alter anything in the environment. Kothari (2011) asserts that the design is suitable where distribution and relationships between or among variables are already manifested and cannot be manipulated. For purposes of the study, the design was justified by the fact that, the phenomena under study could not be altered as it involved an already existing situation. In other words, the current study was only concerned with explaining already existing relationships between inventory management and SMEs' performance.

Target Population

Target population has been described as any group of individuals or elements which bear one or more features in common that are of interest to the researcher (Ott & Longnecker, 2015). The study population was made up of 765 SMEs with operations in Laikipia County, Kenya as gathered from the National Chamber of Commerce and Industry Laikipia County (2017).

Sampling Technique and Sampling Size

Orodho and Kombo (2002) described sampling as the process by which researchers select units; for instance elements, people, or organisations from a population to use them in study and in making generalisations to the entire population. The need for sampling is informed by the need to overcome the difficulties associated with studying the entire population. A sample is therefore composed of a set of representative elements drawn from the target population. The study employed proportionate stratified random sampling procedure to select a sample of 100 SMEs from 18 strata in which the SMEs Laikipia County fall. According to Lavrakas (2008), with proportionate stratified sampling, the sample size of each stratum is proportionate to the population size of the stratum. The sample size of each stratum is determined by the formula; $n_h = (N_h / N) * n$ where n_h is the sample size for stratum h, N_h is the population size for stratum h, N is total population size, and n is total sample size (Ott &

Longnecker, 2015). The study then used purposive sampling to select the business owners as the choice respondents since they are the ones well versed with information sought. The sampling frame was made up of the 765 SMEs operating in Laikipia County, Kenya. According to Bryman and Bell (2015), the process of sample size determination involves the process of selecting the number of elements or replicates to include in a statistical sample. The sample size is a key feature of any empirical study which aims at making inferences about a population from a sample. The combination of proportionate stratified random sampling and purposive sampling methods led to a sample size of 100 respondents comprising of the business owners of the 100 SMEs selected. The number of participants met and surpassed the threshold of 30 as recommended by Mugenda & Mugenda (2003) and Kothari & Warner (2004) as a rule of thumb to ensure normal approximations.

Data Collection Instruments

Both primary and secondary data collection methods were employed for purposes of the study proposed. The researcher collected primary data by way of questionnaires. The questionnaire was organized in a manner that covers all the research objectives. Mugenda and Mugenda (2003) observes that questionnaires are ideal in providing detailed answers to complex problems. Questionnaires are also considered easy and cost-effective to construct and administer which also make the instruments popular. Further, according to Bryman and Bell (2015), questionnaires give a relatively objective data and therefore are recommended as the most effective instruments in data collection. Secondary data was obtained from the business records and other important books of account of the SMEs.

Data Collection Procedure

The current study adopted the drop and pick method in distributing the questionnaires. The questionnaires was administered within a span of two to three weeks during which the study participants were allowed time to respond to the items. The drop and pick method of questionnaire administration was justified by the fact that business owners as targeted by the study are a busy category of organisational staff with numerous duties and commitments. It would therefore not be ideal to seek private sessions with each of these participants as it would be technically difficult. Secondary data was obtained from business records, management reports and other important books of account of the SMEs.

Data Analysis and Presentation

Data was cleaned and then categorised in line with the objectives of the study and then coded into the SPSS software. The data was then subjected to data screening to identify and correct any inconsistencies in the data sets. Both bivariate and multivariate analysis were conducted using SPSS. The researcher utilised both descriptive statistics and inferential statistics in fulfilling the research objectives. Regression and correlation analysis were employed. This was key in explaining the status, direction and magnitude of relationships unveiled. A regression model of the type given below was generated using SPSS software. The model was been adopted from (Kutner, Nachtsheim, & Neter, 2004).

$$Y_{ij} = \beta_0 + \beta_1 X_1 + \epsilon$$

Where: Y_{ij} = SMEs Financial Performance (ROI and Net Profit Margin); X_1 = Inventory Management; β_0 is the intercept; β_1 represents the slope of the regression line influenced by the independent variable & ϵ is the error term.

Data was presented by way of tables, equations and figures and will include frequencies, percentages, means, modes and standard deviations used to give the characteristics of the data. The researcher conducted diagnostic tests to ascertain that the data collected meets the basic assumptions for utilisation of key analysis techniques to be used including the regression analysis. The study used SPSS utilities to assess the collinearity status of the data set. This was achieved through SPSS generated collinearity diagnostic statistics which give Tolerance and Variation of Inflation (VIF) output for assessing the multi collinearity status. According to Montgomery, Peck and Vining (2015), multicollinearity test assesses the likelihood that two or more explanatory variables in a multiple regression model are highly linearly related. Tolerance represents the proportion of variation in the explanatory variable that cannot be accounted for by other predictors included in the model. Extremely small values of Tolerance (less than 0.10) would mean that a predictor is redundant. On the other hand, the Variance of Inflation Factors (VIF) represents the reciprocal of tolerance; i.e. (1 / tolerance). Variables whose Variance of Inflation Factor (VIF) values are greater than 10 may warrant further investigation suffer from the multi collinearity problem (Liu, Kuang, Gong, & Hou, 2003). The Shapiro-Wilk normality test was used to assess the normality status of the data sets. According to Yazici and Yolacan (2007), the test for normality seeks to establish the degree to which data follows a normal distribution and establishes how likely it is for a random variable underlying the data set to be normally distributed. The null-hypothesis for the Shapiro- Wilk test is taken to be normally distributed. This implies that if the p-value is less than the chosen alpha level (in this case 0.05 or 5%), then the null hypothesis would be rejected. An assumption would then be made to that extent that the data tested are not from a normally distributed population. Conversely, should the p-value be greater than the chosen alpha level (5% or 0.05), then the null hypothesis would not be rejected. An assumption would then follow that the data comes from a normally distributed population (Shapiro & Wilk, 1965). The study employed Test Glejser to test the data for heteroscedasticity. According to Long and Ervin (2000), the test for heteroskedasticity seeks to examine the likelihood of there being significant differences in the residual variance of the observations over time. Using the Test Glejser for heteroskedasticity, should the value p values be greater than 0.05 (5%); Sig. > 0.05, then there would be no heteroscedasticity problem in the data set. Conversely, should the p value be less that 0.05 (5%); then the data set would be associated with the heteroscedasticity problem.

RESEARCH RESULTS

The study was interested with determination of the effect of inventory management on financial performance of SMEs in Laikipia County, Kenya. Financial performance was indicated by the net profit margin and return on assets (profitability indicators). On financial performance, the SMEs profitability as indicated by the return on assets and net profit

margins was considerably low and also showed wide variations in profitability of SMEs in the county. As explained by R Square, the Coefficient of Determination, more than three quarters of the variation in financial performance was explained by variability in inventory management. Results further indicated that the SMEs were largely effective in managing the flow and timing of their purchases and payments to the firm’s optima advantage. The results further indicated that SMEs to a great extent paid attention to the control of transaction costs in purchases and regularly reviewed their inventory levels and planned for merchandise orders. Close to two third of SMEs used managers experience in management of inventories. Other notable methods included historical data and EOQ computations. Regression analysis results indicate that inventory management has a positive influence on financial performance of SMEs. The Pearson Correlation Analysis results indicated a very strong positive relationship between inventory management and financial performance of SMEs.

REGRESSION ANALYSIS

Regression analysis was done to determine the effect of working capital management on financial performance of SMEs. Table 1 provides statistical output of the F test.

Table 1: F- Test on ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	223.548	4	55.887	106.007	.001
	Residual	17.399	75	.232		
	Total	240.947	79			

a. Predictors: (Constant), Inventory Management

b. Dependent Variable: Financial Performance

At the 5% level of significance, there was evidence to conclude that the gradient of the regression line was not zero. This is since the p value of 0.002 is within the 5% significance boundary. As such, inventory management was a useful predictor of SME financial performance. The findings support earlier indications by Juan García-Teruel and Martínez-Solano (2007), Vahid et al. (2012) and Deloof (2003) who indicated that inventory management influences financial performance.

The regression model summary, a key output of the regression analysis, was useful in explaining the usefulness of the model in predicting financial performance of SMEs. Table 2 presents the regression model summary.

Table 2: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.869 ^a	.755	.738	.21501	2.331

a. Predictors: (Constant), Inventory Management

b. Dependent Variable: Financial Performance

As explained by R Square, the Coefficient of Determination, 75.50% of the variation in the Financial Performance (the dependent variable) is explained by variability in working capital management variables i.e. cash management, accounts receivables management, accounts payables management, and inventory management. To that effect, only 24.50% of variation in the financial performance was explained by other predictors not included in the model. As such, guided by Draper, Smith, & Pownell (1966) and Seber and Lee (2012), a conclusion was reached that inventory management was a statistically significant predictor of financial performance.

Table 3 captures the multiple linear regression coefficients. Financial performance was analysed as the dependent variable while inventory management formed the independent variable.

Table 3: Regression Model Coefficients generated using SPSS

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	3.007	.087		1.809	.017
	Inventory Management	1.067	.484	.455	3.968	.005

From the regression analysis results, the coefficients for inventory management (1.067) has an associated p-value of 0.005 which is within the 0.05 significance threshold. As such, inventory management is significant determinant of financial performance. A unit increase in inventory management would lead to a 1.067 unit improvement in financial performance of SMEs. The results agree with Juan García-Teruel and Martínez-Solano (2007) and Vahid et al. (2012) who indicated that inventory management positively influences financial performance. The study concludes that working capital management and its components; cash management, receivables management, payables management and inventory management are all useful predictors of performance.

$$\text{Financial Performance} = 3.007 + 1.067 (\text{Inventory Management}).$$

PEARSON CORRELATION ANALYSIS

The Pearson Correlation analysis was applied to further explain the nature, strength and direction of relationship between inventory management and financial performance. Table 4 presents the Pearson correlation output.

Table 4: Pearson Correlation Analysis

		Financial Performance
Inventory Management	Pearson Correlation	.803**
	Sig. (2-tailed)	.031
	N	79

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

The Pearson Correlation Coefficients for inventory management (0.803) shows a very strong and positive relationship with financial performance. The relationship is statistically significant since the p-value (0.031) is below the 5% level of significance. The results agree with Juan García-Teruel and Martínez-Solano (2007) and Vahid et al. (2012) who indicated a positive relationship between inventory management and financial performance. The Pearson Correlation Analysis results confirm that there is a significant positive relationship between financial performance and inventory management. The findings agreed with Mwangi, Muathe and Kosimbei (2014), Mwangi, Muathe and Kosimbei (2014), Abuzayed (2012), and Mengesha (2014) but differed with Bhatia and Srivastava (2016) who established a negative relationship between the inventory management as a component of working capital management and firm performance.

CONCLUSIONS

From the inferential statistics that allow generalisations or inferences to the larger population, a number of conclusions are made. The study concludes that SMEs' financial performance as indicated by the profitability metrics namely return on assets and net profit margins was considerably low informing need to address this situation. From the regression analysis results, the study concludes that inventory management has a positive effect on financial performance of SMEs. The Pearson Correlation Analysis results informed a conclusion on existence of a very strong positive relationship between inventory management and financial performance of SMEs.

RECOMMENDATIONS

Key policy recommendations are made based on the unique findings of the study. The study indicated that the performance of SMEs was generally wanting but indicated that working capital management could help in improving the level of performance. A recommendation is made on need to pursue strategies towards improving the framework of inventory management in the organisations. On inventory management, a recommendation is made on need to control the flow and timing of purchases and payments to the firm's optimal advantage. A keen focus should also be given to the control of transaction costs which have a far reaching implication to firm performance.

REFERENCES

- Abioro, M. (2013). The impact of cash management on the performance of manufacturing companies in Nigeria. *Uncertain Supply Chain Management*, 1(3), 177–192.
- Abuzayed, B. (2012). Working capital management and firms' performance in emerging markets: the case of Jordan. *International Journal of Managerial Finance*, 8(2), 155–179.
- Agyei-Mensah, B. K. (2010). Financial management practices of small firms in Ghana: An empirical study. Retrieved from <https://papers.ssrn.com/>
- Ai-guo, T. (2006). Account Receivable Management. *Commercial Research*, 9, 011.
- Alipour, M. (2011). Working capital management and corporate profitability: Evidence from Iran. *World Applied Sciences Journal*, 12(7), 1093–1099.

- Amin, A., Mohamed. (2014). *Effect of Cash mangement Techniques on Performance of SMEs in Mogandishu, Somalia*. Jomo Kenyatta University of Agriculture and Technology, Nairobi.
- Ayyagari, M., Beck, T., & Demircuc-Kunt, A. (2007). Small and medium enterprises across the globe. *Small Business Economics*, 29(4), 415–434.
- Belwal, R., Tamiru, M., & Singh, G. (2012). Microfinance and sustained economic improvement: Women small-scale entrepreneurs in Ethiopia. *Journal of International Development*, 24, S84–S99.
- Bhalla, V. K. (2010). *Working Capital Management: Text and Cases*. Anmol publications.
- Bhatia, S., & Srivastava, A. (2016). Working Capital Management and Firm Performance in Emerging Economies: Evidence from India. *Management and Labour Studies*, 41(2), 71–87.
- Bhattacharya, Hrishikes. (2014). *Working capital management: Strategies and techniques*. PHI Learning Pvt. Ltd.
- Bhattacharya, Hrishikesh. (2004). *Working capital management: Strategies and techniques*. PHI Learning Pvt. Ltd. Retrieved from <https://books.google.com>
- Bowen, M., Morara, M., & Mureithi, M. (2009). Management of business challenges among small and micro enterprises in Nairobi-Kenya. *KCA Journal of Business Management*, 2(1). Retrieved from <http://www.smmeresearch.co.za>
- Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press, USA.
- Bulmberg, B., Cooper, D. R., & Schindler, P. S. (2011). *Business research methods*. McGraw-Hill/Irwin, Boston.
- Burns, R. B. (1997). *Introduction to research methods*. Addison Wesley Longman.
- Campbell, D. E., & Kelly, J. S. (1994). Trade-off theory. *The American Economic Review*, 84(2), 422–426.
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30(3–4), 573–588.
- Draper, N. R., Smith, H., & Pownell, E. (1966). *Applied regression analysis* (Vol. 3). Wiley New York.
- Dudley, E. (2007). Testing models of dynamic trade off theory. Retrieved from <https://papers.ssrn.com>
- Durbin, J., & Watson, G. S. (1971). Testing for serial correlation in least squares regression. III. *Biometrika*, 58(1), 1–19.
- Emery, G. W., & Marques, M. A. (2011). The effect of transaction costs, payment terms and power on the level of raw materials inventories. *Journal of Operations Management*, 29(3), 236–249.
- Glejser, H. (1969). A new test for heteroskedasticity. *Journal of the American Statistical Association*, 64(325), 316–323.
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education. Retrieved from <https://scholarworks.iupui.edu>
- Hill, R. A. (2013). Working capital management. *Recuperado de Http://202.191, 120, 8020*.
- Jagongo, A. O., & Makori, D. M. (2013). Working Capital Management and Firm Profitability: Empirical Evidence from Manufacturing and Construction Firms Listed on Nairobi S ecurities Exchange, Kenya. Kenyatta University
- Juan García-Teruel, P., & Martínez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164–177.

- Kihimbo, B. W., Ayako, B. A., Omoka, K. W., & Otuya, W. L. (2012). Financing of small and medium enterprises (SMEs) in Kenya: A study of selected SMEs in Kakamega municipality. *International Journal of Current Research*, 4(4), 303–309.
- Kiprotich, K. G., Wanjare, J., Joab, O., & Oluoch, M. F. (2013). *Working capital management practices and financial performance of sugar cane out grower companies in Kenya*. University of Nairobi.
- Kothari, C. R. (2011). *Research methodology: methods and techniques*. New Age International.
- Kothari, S. P., & Warner, J. B. (2004). The econometrics of event studies. Available at SSRN 608601. Retrieved from <http://papers.ssrn.com>
- Kutner, M. H., Nachtsheim, C., & Neter, J. (2004). *Applied linear regression models*. McGraw-Hill/Irwin.
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. Sage Publications.
- Lipson, M. L., & Mortal, S. (2009). Liquidity and capital structure. *Journal of Financial Markets*, 12(4), 611–644.
- Liu, R. X., Kuang, J., Gong, Q., & Hou, X. L. (2003). Principal component regression analysis with SPSS. *Computer Methods and Programs in Biomedicine*, 71(2), 141–147.
- Long, J. S., & Ervin, L. H. (2000). Using heteroscedasticity consistent standard errors in the linear regression model. *The American Statistician*, 54(3), 217–224.
- Mabrey, S., Bass, C., Ryan, S., Nation, C., & Hannoneh, A. (2003). *Methods and systems for managing accounts payable*. Google Patents.
- Mathew, S. (2007). *Working Capital Management*. Amrita Vishwa Vidyapeetham. Retrieved from <http://www.academia.edu>
- Mengesha, W. (2014). *Impact of Working Capital Management on Firms' Performance: The Case of Selected Metal Manufacturing Companies in Addis Ababa, Ethiopia*. Jimma University.
- Montgomery, D. C., Peck, E. A., & Vining, G. G. (2015). *Introduction to linear regression analysis*. John Wiley & Sons.
- Mugenda, O. M., & Mugenda, A. G. (2003). Research methods. *Nairobi: ACTS*.
- Mwangi, L., Wamugo, Muathe, S., Makau, & Kosimbei, G. (2014). Effects of Working Capital Management on Performance of Non-Financial Companies listed in NSE, Kenya. *European Journal of Business and Management*, 6(11), 21–45.
- Mwobobia, F. M. (2012). The challenges facing small-scale women entrepreneurs: A case of Kenya. *International Journal of Business Administration*, 3(2), 112.
- Ndagijimana, J. P. (2014). *Factors Affecting Working Capital Management Practices In Small and Medium Enterprises in Nairobi*. United States International University-Africa.
- Njeru Mugambi Duncan, D., Njeru, A., Member, F., & Tirimba, O. I. (2015). Effect of Cash Management on Financial Performance of Deposit Taking SACCOs in Mount Kenya Region. Retrieved from <http://citeseerx.ist.psu.edu>
- Nobanee, H. (2009). Working capital management and firm's profitability: an optimal cash conversion cycle. Available at SSRN 147123. Retrieved from <https://www.researchgate.net>
- Officer, A. C. F. (2016). Accounts Receivable Management. *Policy*. Retrieved from <http://extcontent.covenanthealth.ca>
- Orinda, R. A., & Otieno, L. (2014). Financial challenges facing small and medium enterprises in Kisumu city, Kenya.

- Orodho, A. J., & Kombo, D. K. (2002). Research methods. *Nairobi: Kenyatta University, Institute of Open Learning.*
- Ott, R. L., & Longnecker, M. (2015). *An introduction to statistical methods and data analysis.* Nelson Education.
- Padachi, K. (2006). Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. *International Review of Business Research Papers*, 2(2), 45–58.
- Penman, S. H., & Penman, S. H. (2007). *Financial statement analysis and security valuation.* McGraw-Hill New York. Retrieved from <http://www.academia.edu>
- Preve, L., & Sarria-Allende, V. (2010). *Working capital management.* Oxford University Press.
- Razali, N. M., & Wah, Y. B. (2011). Power comparisons of shapiro-wilk, kolmogorov-smirnov, lilliefors and anderson-darling tests. *Journal of Statistical Modeling and Analytics*, 2(1), 21–33.
- Richards, V. D., & Laughlin, E. J. (1980). A cash conversion cycle approach to liquidity analysis. *Financial Management*, 32–38.
- Ronge, E., Ndirangu, L., & Nyangito, H. (2002). *Review of government policies for the promotion of micro and smallscale enterprises in Kenya.* Kenya Institute for Public Policy Research and Analysis.
- Ross, S. A., Westerfield, R., & Jordan, B. D. (2008). *Fundamentals of corporate finance.* Tata McGraw-Hill Education.
- Sanders, A. R. R. (2011, July 1). Importance of SME Development in Africa: They Will Produce Africa's Middle Class. Retrieved from <http://www.huffingtonpost.com>
- Seber, G. A., & Lee, A. J. (2012). *Linear regression analysis* (Vol. 936). John Wiley & Sons.
- Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 591–611.
- Singh, P., & others. (2008). Inventory and working capital management: An empirical analysis. *The IUP Journal of Accounting Research and Audit Practices*, 7(2), 53–73.
- Stephen, M., & Elvis, K. (2011). Influence of working capital management on firms profitability: a case of SMEs in Kenya. *International Business Management*, 5(5), 279–286.
- Tadelis, S., & Williamson, O. E. (2012). Transaction cost economics. Retrieved from <https://papers.ssrn.com>
- Vahid, T. K., Elham, G., khosroshahi Mohsen, A., & Mohammadreza, E. (2012). Working capital management and corporate performance: evidence from Iranian companies. *Procedia-Social and Behavioral Sciences*, 62, 1313–1318.
- Williamson, O. E. (1989). Transaction cost economics. *Handbook of Industrial Organization*, 1, 135–182.
- World Bank Report on SMEs. (2015). *Overview of Small and Medium Enterprises (SMEs) performance in emerging economies.* Retrieved from <http://www.worldbank.org>
- Yazici, B., & Yolacan, S. (2007). A comparison of various tests of normality. *Journal of Statistical Computation and Simulation*, 77(2), 175–183.
- Zipkin, P. H. (2000). *Foundations of inventory management* (Vol. 20). McGraw-Hill New York.