EFFECT OF CASH CONVERSION CYCLE AND INVENTORY HOLDING PERIOD ON THE PROFITABILITY OF SMALL AND MEDIUM ENTERPRISES IN WOTE, MAKUENI COUNTY

Victoria Mbathi[1], Felix Mwambia[1] & Joy Makena[1]

[1] School of Business, Kenya Methodist University, Nairobi, Kenya.

Email: vickymfelsy@yahoo.com

ABSTRACT: *This study examined influence of working capital management practices on the profitability of small and medium sized enterprises in Makueni County. A cross-sectional survey research design was used. A sample of 50 small and medium sized enterprises from Wote town was used. The financial statements for 2012-2016 were used to generate secondary data while semi-structured questionnaires were used for primary data collection. Descriptive statistics of frequency, means and standard deviation were used while the results were presented in tables. The study aimed at finding out the relationship between profits of the small and medium enterprises and inventory turnover, receivables, cash management and payables. The findings indicated that there exist a positive but not significant relationship between cash conversion cycle and profitability, while inventory-holding period has a positive and significant effect on profitability. The study recommends an improvement on the cash conversion cycle and use of the findings for developing policies for improvement since small and medium enterprises are key contributors to the Gross Domestic Product of the country.*

KEY WORDS: working capital management, cash conversion cycle, small and medium enterprises

INTRODUCTION

In the current business environment, for an organization to survive even though they are making profits, they ought to also focus on offsetting short term debts as they fall due. Sound corporate management involves the Working Capital Management (WCM) that is construed as the force behind the performance of an economic entity and forms the most fundamental function. It is important to acknowledge the fact that Working Capital (WC) is a necessity for every organization because it maintains the level of the organization's liquidity, improves the organization's chances of survival in a very competitive environment, guarantees solvency of the business and improves profitability (Mukhopadhyay, 2004). A combination of working capital and fixed assets such as equipment and plants are all considered working capital.

According to Azeez, *et al.* (2016), the most significant subject in financial decision-making is WC as all asset investment entails suitable financing. However, WC is overlooked when

making financial decision because it is always involved in investment and financing in short term periods. According to Kimeli (2014), working capital affects financial performance of a firm by failing to contribute return on equity.

Deficiency of suitable WCM skills by Small and Medium Enterprises (SMEs) makes it hard for them to get any kind of financial help as most financial institutions insist on financial discipline, a key component of which is proper WCM (Atrill, 2006). Apparently, there are challenges plaguing SMEs in their quest to establish a suitable balance between excess and deficiency of working capital and this lack of proper WCM practices eventually affects profitability of the SMEs. Consequently, slow growth rate of SMEs coupled with deficiency of working capital chiefly due to lack of sound WCM accounts for the inability of SMEs to settle daily expenses. Existing studies on WCM are inconclusive in as far as conceptual and contextual aspects of these studies are concerned. Different authors have documented various articles on the effect of WCM on profitability only on big companies only listed in the NSE (Mwangi, *et al.,* 2014; Makori & Jagongo, 2013; Nzioki *et al.,* 2013). No specific research study has been conducted on SMEs in Kenya and more specifically in the rural areas. With this in mind and the fact that the SME sector contributes significantly to the economy of Kenya, there was need to establish the effects of WCM practices on the profitability of SMEs especially in developing and rural areas. This study consequently purposed to establish the effect of WCM practices used by trading SMEs in Makueni County and how they affect their profitability. Going deeper, this research article however documents the effect of cash conversion cycle and the inventory holding period on the profitability of SMEs in Makueni County.

The findings of this study will help financial institutions that finance SMEs to understand the SME sector and their WCM practices and act as a guide while offering credit facilities. The results can also assist the government regulate businesses by providing guidance to the kind of regulations they should have for SME's and whether to review the presently available Laws and Regulations.

METHODOLOGY

Study area
The emphasis of the study was on Wote town, the headquarters of Makueni County which has the varied SMEs for the study where the samples were drawn. This included 50 major trading SMEs currently registered within the town (KNBS, 2019).

Research design
A descriptive-cross sectional research design suitable in the use of a questionnaire for data collection was used, (Kothari, 2004). The research design applied was found useful in drawing valuable inferences about the study's target population within a specified time frame. The population of this study was 50 registered and fully operational trading SMEs within Makueni County. Makueni County was chosen to represent SMEs operating in less developed areas and that face most challenges in their desire to grow. A census was adopted

for the study where all the 50 SMEs were targeted, Mugenda, (2008) argues that a census is suitable when a sample size is less than 200 hence this study was justified. For data collection, the sample constituted proprietors/ senior managers of the SMEs. Table 1 shows the categories of SMEs interviewed.

Table 1: Population of the study

Category	Target population
Supermarkets	5
Hard wares	10
Bookshops	10
Hair salons & Barber shops	15
Groceries	10
TOTAL	**50**

Data collection and analysis

To answer the study questions, the study opted to use both primary as well as secondary data. The latter was obtained from financial statements of the unit of analysis (SMEs) for the financial years 2012-2016. The study utilised ICP, ACP as well as APP, as the proxies of WCM and therefore the secondary sources of data provided amount of cash and inventory, number of debtors and amount of credit for the respective WCM indicators. The secondary data was supplemented by primary data collected by the use of questionnaires that were self-administered on the various WCM practices. The questionnaire was semi- and based on a 5-point Likert scale that gave respondents opportunity to make definite choices and not propensity for neutral responses.

Data was analyzed through descriptive as well as inferential statistics. The former technique encompasses conversion of unprocessed data to tables and chart that show frequency and percentages. In this study, the descriptive statistics such as frequency distribution tables, means, in addition to standard deviation captured a summary of the data from respondents. SPSS software was used to obtain these statistics. A multiple linear regression model was used for the purpose of establishing the association between WCM and profitability. The regression analysis model of the study was framed as follows to capture the association between the specific WCM practices and profitability:

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

Equation 1

Where:

Y = Profitability of SMEs

β_0 = Intercept

X_1 = Cash conversion cycle

X_2 = Inventory Holding period

X_3 = Account receivable period

X_4 = Accounts payable period

π = Error term normally distributed about the mean of zero
$\beta 1_{...}\beta_4$ are coefficients of the independent variables

Reliability and validity

Prior to the main study, the questionnaire was framed to capture the two kinds of research designs (quantitative and qualitative). To establish reliability of the questionnaire, internal consistency was measured through Cronbach Alpha. The threshold for accepting reliability was 0.7 whereby where the overall reliability was above 0.7, the questions were accepted as reliable. The respondents were 29 whom the researcher conveniently chose and consisted of proprietors/ senior managers of the SMEs.

RESULTS AND DISCUSSION

Response rate

Out of the target 50, 43 (86%) questionnaires were properly responded. This is regarded a good representation according to assertions by Lavrakas (2008), response rate of 70% and above is very good to proceed with statistical analysis. 51.2% of the respondents were female, consistent to findings of a study conducted in Kenya that reported that females dominate SMEs in Kenya (Bryman & Bell, 2007). The response per strata is presented in Table 2.

Table 2: Number of respondents per enterprise

Type of Enterprises	Target Size	Frequency	Percent
Supermarket	5	4	9.3
Hard Ware	10	10	23.3
Bookshop	10	7	16.3
Hair Saloon and Barber Shop	15	12	27.9
Grocery	10	10	23.3
Total	**50**	**43**	**100**

Effect of Cash Conversion Cycle on the Profitability of SMEs

The respondents were asked to rate statements on a scale of 1 to 5 where 1- Strongly Disagree, 2- Disagree, 3- Not sure, 4-Agree, 5- Strongly Agree. Table 3 represents the results.

Table 3: Descriptive characteristics of cash conversion cycle

Statement	1	2	3	4	5	Mean	Std Dev
The duration of CCC has a substantial influence on the profitability.	0.0%	4.7%	4.7%	39.5%	51.2%	4.37	0.79
Shorter cash conversion cycles are better than longer ones.	0.0%	4.7%	9.3%	39.5%	46.5%	4.28	0.83
Each SME ought to fix its standard level of CCC	2.3%	2.3%	4.7%	60.5%	30.2%	4.14	0.80
Lower level staff are responsible for management of CCC	58.1%	20.9%	4.7%	16.3%	0.0%	1.79	1.12
Average						**3.65**	**0.89**

The results show, 51.2% of the respondents who were the majority in this case strongly agreed that the duration of CCC has a substantial influence on the profitability while 39.5% agreed on the same. Similarly, 46.5% of the respondents strongly agreed that shorter cash conversion cycles are better than longer ones while 39.5% agreed on the statement. Furthermore, 30.2% of the respondents strongly agreed that each SME ought to fix its standard level of CCC while 60.5% agreed on the same. Lastly, 58.1%, of respondents strongly disagreed that lower-level staff are responsible for management of CCC. The average standard deviation of 0.89 indicates that similar views were held by majority of the respondents since there is less variation in the responses.

For further analysis, the Variance Inflation Factor (VIF) method was used to test the multi-collinearity between the independent variables. The author assumed that that the independent variables should not suffer from multicollinearity (high correlations) since it affects the final results. The results established that there exists a positive but not significant effect of cash conversion cycle on profitability of SMEs (B = 0. 205, P-value = 0.059 >0.05). The implication in this case is that an improvement in cash conversion cycle practices involving purchases and sales controls, better operating cash flow management practices and bank collections practices, leads to an improvement in profitability of SMEs although the improvement is not significant. The findings are consistent with Abel, (2008) whose argument suggested that there is fast conversion of current assets to cash because of improved effectiveness in WCM with greater cash holding and profitability resulting from conversion of the balance average investments in stock as well as accounts receivable.

The study asked open-ended questions on the study variables to seek mode in depth information. On whether the respondents thought SMEs can successfully maintain a good CCC to improve profitability, majority of the respondents indicated that they maintain good cash conversion practices such as having shorter period as well as having a standard cash

conversion cycle, setting favorable prices to allow quick and faster selling of products and having prompt cash in point to reflect each payment.

Effect of the Inventory Holding Period on the Profitability of SMEs
The respondents rated statements on a scale of 1 to 5. Table 4 shows the results.
Table 4: Descriptive statistics of the Inventory Holding period

Statement	1	2	3	4	5	Mean	Std Dev
The duration of IHP has a significant influence on the profitability of SMEs.	0.0%	7.0%	0.0%	39.5%	53.5%	4.40	0.82
In order to maintain adequate stocks, there is need for the firms to set EOQ	0.0%	0.0%	4.7%	48.8%	46.5%	4.42	0.59
Profitability is negatively affected by extended IHP	4.7%	4.7%	2.3%	41.9%	46.5%	4.21	1.04
Poor inventory management will affect the long term profitability and firm's survival chances.	2.3%	4.7%	9.3%	34.9%	48.8%	4.23	0.97
Average						**4.31**	**0.85**

In this case, 53.5% and 39.5% of the respondents strongly agreed and agreed respectively that the duration of IHP has a significant influence on the profitability of SMEs. Similarly, 48.8% of the respondents who were the majority in this case agreed that in order to maintain adequate stocks, there is need for the firms to set EOQ while 46.5% strongly agreed on the statement. The findings further showed that 48.8% of the respondents strongly agreed that profitability is negatively affected by extended IHP. Similarly, 41.9% of the respondents agreed on the statements. Lastly the findings showed that 48.8% strongly agreed that poor inventory management will affect the long-term profitability and firm's survival chances. Similarly, 34.9% of the respondents agreed on the statement. The average standard deviation of 0.85 indicates that similar views were held by majority of the respondents since there is less variation in the responses.

Using the VIF method, the study further showed that inventory-holding period has a positive and significant effect on profitability of SMEs ($r = 0.614$, P-value $= 0.000 < 0.05$) at 5% level of significance. This implies that an improvement in the inventory holding practices would significantly lead to an improvement in profitability of SMEs significantly. 4.4 Profitability in Small and Medium Enterprises. Profitability of the SMEs was the dependent variable of this study and respondents rated statements on it on a scale of 1 to 5. Table 5 shows the results.

Table 5: Descriptive statistics of profitability

Statement	2	3	4	5	Mean	Std Dev
External financing to the business is enhanced as a result of high percentage in profitability	2.30%	0.00%	20.90%	76.70%	4.72	0.59
Profitability is measured using ROE, Net profit margin and ROA	0.00%	23.30%	25.60%	51.20%	4.28	0.83
Average					**4.50**	**0.71**

Results showed that 76.7% of the respondents strongly agreed that external financing to the business is enhanced as a result of high percentage in profitability while 20.9% agreed. Furthermore, 51.2% of the respondents strongly agreed that profitability is measured using ROE, Net profit margin and ROA. A similar statement was agreed upon by 25.6% of the respondents. The average standard deviation of 0.71 indicates that similar views were held by majority of the respondents since there is less variation in the responses.

The findings further showed that inventory holding period has a positive and significant effect on profitability of SMEs (B = 0.276, P-value = 0.024 < 0.05). The implication in this case is that an improvement in inventory turnover, inventory ageing period and reorder time will lead to a significant improvement in profitability of SMEs. The findings are consistent with Molay, (2011) who indicated that inventory management improves performance and that reducing ICP improves stock out costs and consequently leads to loss of sales, deterioration in firm performance.

CONCLUSION

The study concludes that a cash conversion cycle has a positive and huge effect on financial performance of SMEs. Cash conversion practices such as purchases and sales controls, better operating cash flow management practices and bank collections practices would significantly affect financial performance of SMEs. Since the study findings indicated that cash conversion cycle has a positive effect on performance of small and medium enterprises in Makueni County, the study recommends that the small and medium enterprises should come up with practices that aim to enhance the cash conversion cycle. How they should do this by having proper purchases and sales controls, better operating cash flow management practices and bank collections practices.

The author concluded inventory holding has a positive and significant effect on the performance of Small and medium enterprises in Makueni County. Inventory holding practices such as improvement in inventory turnover, inventory ageing period and less can increase financial performance of SMEs significantly. The study recommends that the small and medium enterprises should aim to improve their inventory management practices more. To do that, there is a need to improve on such practices like inventory turnover management; close monitoring of the inventory ageing period and having working reorder times.

References.

Atrill, P. (2006). Financial Management for Decision Makers. New York: Prentice Hall.

Azeez, O. T., Abubakar, M. A., & Olamide, F. T. (2016). Analysis of the effects of working capital management on profitability of listed Nigerian conglomerate companies. *FWU Journal of Social Sciences*, *10*(1), 10-20.

Kenya National Bureau of Statistics (KNBS) (2019). Economic Survey 2019.

Kimeli, M. (2014). Relationship between Working Capital Components and Financial Performance of the Commercial and Services Firms Quoted at the Nairobi Security Exchange. *Unpublished MBA Project*.

Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. Sage Publications.

Makori, D. M., &Jagongo, A. (2013). Working capital management and firm profitability: Empirical evidence from manufacturing and construction firms listed on Nairobi securities exchange, Kenya. *International Journal of Accounting and Taxation*, *1*(1), 1-14.

Mugenda M. O. & Mugenda A. (2003), Research Methods: Qualitative and Quantitative Approaches, Acts Press, Nairobi Mugenda, O.M. &Mugenda, A.G. (2003). Research Methods: Quantitative and Qualitative Approaches. Nairobi: African Centre for Technology Studies

Mukhopadhyay, D. (2004). Working capital management in heavy engineering firms-A case study. *Management Accountant-Calcutta-*, *39*, 317-323.

Mwangi, L. W., Makau, M. S., & 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), 195-205.

Nzioki, P. M., Kimeli, S. K., Riwo Abudho, M., & Nthiwa, J. M. (2013). Management of working capital and its effect on profitability of manufacturing companies listed on Nairobi securities exchange (NSE), Kenya.