

Determinants of Firms' Working Capital Panel Evidence from Listed East African Manufacturing Companies

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Abstract

This study evaluates the determinants of working capital of manufacturing companies listed in East Africa Stock Exchanges. It uses Cash Conversion Cycle and Acid Test Ratios as the measures of working capital and Return on Assets (ROA), Firm Size, Firm Growth, Asset Utilization, Operating cash flows, Gearing and Real GDP Growth Rate as the determinants of working capital. This study employed the Fixed and Random Affect Multiple regression models using panel data in the period (2005-2014). The findings showed that ROA, Firm size and Firm Growth and Asset Utilization have a significant relationship with Cash Conversion Cycle using the Random Effect model. For Acid Test Ratio; Firm Size, Firm Growth, Gearing and Operating Cash Flows showed significant relationship with this ratio using the Fixed Effect model. So manufacturing companies are urged to maintain appropriate working capital levels by striking a balance between the factors that influence working capital as they have been established by this study.

Keywords: Working capital, Determinants of working capital

1. Introduction

One of the most challenging responsibilities of a financial manager is the proper management of working capital. This is attributed by two (2) factors; first, working capital management involves managing various intertwined elements namely inventory, trade receivables, cash and trade payables. Secondly, working capital management is a more involving activity because it is done on daily basis as compared to capital budgeting and capital structure decisions which may not be done very often. Lamberson (1995) depicts that working capital management has become one of the most essential issues in the firms forcing financial managers to strive in determining working capital determinants together with the appropriate level of working capital. This is due to the fact the working capital management has a tremendous impact on company's liquidity and profitability (Nazir & Afza, 2009) hence it helps to avoid liquidity shortages thus ensuring going concern of the company (Eljelly, 2004).

Due to the fact that working capital management is a challenging task, financial managers have to know for certain the factors that attribute to efficient working capital management. Various studies have been conducted globally to evaluate the determinants of efficient working capital management. A study conducted in Palestine by (Abaddi and Abaddi, 2013) discovered that cash conversion cycle, Return on Assets and operating cash flow have a significant positive influence on working capital requirements, while leverage and firm size were negatively related to the working capital requirements. These findings were synonymous with those of (Darun, 2008) in Malaysia and (Singh, 2008) in India.

There a few studies that were conducted in the Africa assessing this phenomenon, (Ndagijimana & Okechi, 2004) assessed the determinants of working capital management in Nairobi however their focus was on Small and Medium Enterprises. Their study found a significant positive relationship between accounts receivable, accounts payable and cash conversion cycle, and working capital management practices in the enterprises. Also the findings of a similar study conducted for listed companies in Nigeria found out that firm's leverage, size, industry classification, return on asset and operating cycle are significant factors that determine the firms' working capital requirements (Onalapo & Kajola, 2015). So this study assesses the determinants of working capital management in listed manufacturing companies in East Africa using the Fixed and Random Effect multiple regression analysis which is a different approach from many previous studies of similar topic.

The study uses two (2) measure of working capital, the first measure is Cash Conversion Cycle, and this reflects the fact that efficient firms in managing working capital strive to keep Cash Conversion Cycle to the minimum in order to avoid liquidity problems. The second measure is Acid-Test Ratio which measures the ability of most liquid current assets namely; cash, bank and trade receivables to cover short term liabilities. The determinants of working capital were divided into two (2) parts, internal and external determinants. The internal determinants are form specific and included Firm Size, Gearing, Firm Growth, Operating Cash flows and Return on Asset and Asset Utilization. The external determinant of working capital was Real GDP Growth Rate of the country the company operates in.

2. Objectives of the study

The main objective of this study is to assess the determinants of firm's working capital, to achieve this objective the following specific objectives were developed.

- a) To examine the relationship between determinants of working capital and Cash Conversion Cycle
- b) To evaluate the relationship between the determinants of working capital and Acid Test Ratio.

3. Literature Review

Several studies have been conducted worldwide to evaluate the determinants of efficient working capital management. A study by (Hill et al., 2009) showed that the working capital ratio has a significant negative relationship to the sales growth and positively related to operating cash flows. In a similar study by (Shin & Soenen, 1998), it was discovered that cash conversion cycle is positively related to profitability and size of the firm however it was negatively related to the value of the company.

A research conducted by (Zariyawati et al., 2010) assessing the determinants of working capital management of listed firms in Malaysia indicated that firm size, debt, firm growth, economic growth and inflation associates with firm's working capital. Filbeck and Krueger (2005) found out that working capital requirement of a firm varies with the economic cycles, thus, in times of high volatility, the companies use large amounts of capital and during low volatility, the firms tend to take an aggressive approach.

A study by (Gill, 2011) assessing the determinants of working capital in Canadian companies found out that working capital requirements was positively related to operating cycle and return on assets (ROA). However working capital management requirements was negatively related to the firm size and Tobin's q. In another study conducted in Thailand, it was observed that cash flows of a company are a very important determinant of working capital requirements (Ranjith, 2008). Furthermore, when future cash flows of a firm are fluctuating, then the short term cash held by the company and the short term investment of the company will increase.

Chiou & Cheng (2006) evaluated determinants of working capital in Taiwanese companies, their findings revealed that debt ratio, operation cash flow to total assets negatively, and firms' age and return on assets positively associated to the working capital requirements. In the other study by (Nakamura & Palombini, 2012) it was discovered that debt level, size and growth rate can affect working capital management of the companies listed in Sao Paulo Stock Exchange in Brazil.

In a study conducted by (Lyroudi & Lazaridis, 2000) using evidence from companies in Greek food industry, it was discovered that Cash Conversion Cycle (CCC) had a significant positive relationship with traditional liquidity measures of profitability and the profitability measures of return on assets (ROA) and net profit margin. Caballero et al., (2009) carried out a study to determine working capital management in SMEs operating in Spain; their findings revealed that firm's with longer cash conversion cycle are older firms with more cash flows. Furthermore, cash conversion cycle was highly negatively correlated to the debt ratio, firm's growth, fix asset's investment, and ROA.

4. Research Gap

Numerous studies have been conducted globally assessing determinants of working capital management in companies as it can be observed in the literature review. However, most of these studies have carried out this assessment using ordinary least squares method and came up with conclusions. Using ordinary least squares regression would not be appropriate for a study of this nature because the study uses panel data from different companies.

Hence this method does not account for the differences between companies (assumes the companies are homogeneous in nature). Due to heterogeneous nature of data this study has used random and fixed effect regression analysis unlike many other previous studies.

5. Research Methodology

5.1. Research design

This study evaluated the determinants of working capital management efficiency using a case study of manufacturing companies listed in various East African Stock exchanges. The study conducted the analysis of twelve (12) manufacturing companies listed in the East African stock exchanges in the period (2005-2014). The study is quantitative in nature; analysis of data has been conducted quantitatively using various econometric tools.

5.2. Source of data

The data used in this study was collected from the financial statements of the manufacturing companies listed in East Africa Stock Exchanges. These financial statements were obtained from the annual reports of these particular companies accessed through their official websites. The financial statements used were for the financial years (2005-2014). Due to the differences in currencies between companies listed in East African stock exchanges, the study converted the all the financial statement elements used to Tanzanian Shillings. The income statement elements were converted to Tanzania shillings using the average exchange rate in a respective year and the statement of financial position elements were converted using the closing rate. The conversion was done in compliance with IAS 21 "The effect of changes in foreign exchange rates"

5.3. Description of the Variables

The variables used in this study included the determinants of working capital and working capital. The variables employed in the study together with their descriptions were as follows;

Table 1: Description of variables

No.	Variable	Description
	Dependents Variables	
1.	Cash Conversion Cycle (CCC)	= Debtors Collection Period + Stock Holding Period – Creditors Deferral Period
2.	Acid-Test Ratio (ATR)	= $\frac{\text{Current Assets} - (\text{Stock} + \text{Prepayments})}{\text{Current Liabilities}}$
	Independent Variables	
1.	Return on Assets (ROA)	= $\frac{\text{Profit Before Interest And Tax}}{\text{Total Assets}} \times 100\%$
2.	Firm Size (FS)	= Logarithm of Total Assets
3.	Firm Growth (FG)	= $\frac{\text{Sales}_1 - \text{Sales}_0}{\text{Sales}_0} \times 100\%$
4.	Gearing (G)	= $\frac{\text{Long Term Interest Bearing Debts}}{\text{Long Term Debts Interest Bearing Debts} + \text{Equity}}$
5.	Asset Utilization (AU)/Turnover	= $\frac{\text{Revenue}}{\text{Net Assets}}$
6.	Operating Cashflows (OC)	= $\frac{\text{Operating Cash flows}}{\text{Sales}}$
7.	Real GDP Growth rate (RGDP)	As per countries statistics

Table 1 shows the variables that were used in conducting this study together with their descriptions. The relationship between the determinants of working capital and working capital itself is as follows;

Return on Assets

Firms that are more profitable are more likely to be highly liquid because they have ability to negotiate with both suppliers and customers, hence these firms can utilize these competitive advantages to boost their working capital (Shin & Soenen, 1998).

Firms Size

Niskanen & Niskanen (2006) depict that Firms with larger size have been observed to have better access to financial markets as compared to small firms; this gives them ability to extend more trade credits which enable them to possess more investment in working capital. It has been found out that the size of the firm has an influence on the working capital policy of that particular firm (Moussawi et al., 2006).

Firm's Growth

As the firm grows, the working capital increases as a result of increase in trade credit grant and increase investment in stocks (Gill, 2011).

Gearing

Caballero et al., (2009) portray that firms which are more indebted have to strive to keep their working capital levels lower. This is due to the fact that the cost of the money invested in working capital would normally be higher for more leveraged firms. Firms have higher leverage due to insufficient capital finance daily operations; ultimately, the firm may have to resort to raise capital from outside sources to supplement insufficient funds which forces them to manage working capital management cautiously (Narendre et al., 2009).

Asset Utilization

The more a firm utilized its assets to generate revenue the more liquid the firm becomes because it increases investment in stock and also more revenue generation may result into generation of more operating cash flows.

Operating Cash flows

Firms with larger operating cash flows tend to have more working capital due to the fact that these firms possess more internal sources to finance working capital and hence increasing current asset levels (Fazzari et al., (1993).

Real GDP Growth Rate (GDPR)

The country's economic growth is measured by real GDP growth rate, (Lamberson, 1995) narrated that small size firms respond differently in working capital management as a result of the changes in economic activities, this is by increasing working capital when there is economic downturn. It has also been further narrated by (Walker, 1991) that the state of the economy has a significant influence on the debtors' level.

5.4. Data Analysis

Due to the fact that this study analyzed companies in different countries that have different economic conditions Ordinary Least Squares regression could not be used because it could have led to wrong conclusions. So due to the heterogeneous nature of data the study conducted regression analysis using both the "fixed effect" and "random effect". Then the study went further to carry out the Hausman test to check for the appropriateness of the results from the two (2) types of regression analysis conducted.

The following Hypothesis was developed in relation to appropriateness of fixed effect and random effect models;

Ho: Random effect model is appropriate.

H1: Fixed effect model is appropriate.

Model Specification

The multiple regression models used in this study were as follows;

Model 1

$$Y_{CCC} = \alpha + \beta_1 ROA + \beta_2 \text{Firm Size} + \beta_3 \text{Firm Growth} + \beta_4 \text{Gearing} + \beta_5 \text{Asset Utilization} + \beta_6 \text{Operating cash flows} + \beta_7 \text{RGDP} + E$$

Model 2

$$Y_{ATR} = \alpha + \beta_1 ROA + \beta_2 \text{Firm Size} + \beta_3 \text{Firm Growth} + \beta_4 \text{Gearing} + \beta_5 \text{Asset Utilization} + \beta_6 \text{Operating cash flows} + \beta_7 \text{RGDP} + E$$

These were the two (2) models that were employed in doing data analysis and generating conclusions from various econometric tests that were carried out. The following hypotheses were developed in relation to the multiple regression models;

- a. There is a significant relationship between profitability and working capital.
- b. There is a significant relationship between firm size and working capital.
- c. There is a significant relationship between firm growth and working capital.
- d. There is a significant relationship between gearing and working capital.
- e. There is a significant relationship between asset utilization and working capital.
- f. There is a significant relationship between operating cash flows and working capital.
- g. There is a significant relationship between Real GDP growth rate and working capital.

To avoid serial correlation problem that may affect the models, the study conducted the “Pasaran CD test” to examine the existence of this problem. The following hypothesis was developed;

Ho: There is no serial correlation

H1: There is serial correlation

6. Analysis of Findings

6.1 Descriptive Statistics

The descriptive statistics for the variables used in this study are presented in table 2 below;

Table 2: Descriptive statistics for the study variables

Variable	Observation	Mean	Std. Dev.	Min	Max
Cash conversion Cycle	88	25.90405	15.5318	5.8904	188.9234
Acid Test ratio	88	1.327301	1.134069	0.240128	8.026441
ROA	88	0.2286001	0.1497034	-0.44656	0.502214
Firm size	88	6.73163	1.063604	4.185599	8.44378
Firm growth	88	0.1477382	0.1759591	-0.26191	0.499126
gearing	88	0.2225621	0.1291204	0.061879	0.669827
Asset utilization	88	0.9873613	0.4305889	0.214172	2.743492
Operating cash flows	88	0.0940665	0.1164384	0.001094	0.575158
Real GDP growth	88	5.219318	1.663389	1.7	7.3

The results from table 2 show that manufacturing companies in East Africa have a mean cash conversion cycle of 25.90405 days and a standard deviation of 15.5318 from the mean. Also these companies have the average acid test ratio of 1.327301 which shows that they are able to cover their short term obligations from current assets excluding inventories and prepayments. The average ROA and firm growth for these manufacturing companies are 0.229 and 0.148 which indicates that these firms are profitable and are growing accordingly. The average gearing is 0.22, this exemplifies that the manufacturing companies in East Africa keep very low leverage i.e. have very low proportion of long term interest bearing loans in the capital structure. The mean asset utilization is approximately 1 which is not very promising and the mean ratio of operating cash flows to sales is approximately 0.1 which is also low.

6.2 Discussion of Findings

To assess the relationship between determinants of working capital and working capital management, first the determinants of working capital were regressed with the cash conversion cycle as the dependent variable. Then these determinants were regressed with the acid test ratio using both random effect and fixed effect multiple regression analysis. These findings have been analyzed as follows;

Random Effect Multiple Regression Analysis for the Relationship between the Determinants of Working Capital and Cash Conversion Cycle the results for this test were presented in table 3 below;

Table 3: Results from random effect multiple regression analysis in model 1

Cash conversion Cycle	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
ROA	267.5679	255.5589	-1.05	0.029	-768.4541	233.3183
Firm size	2.346647	47.0208	0.05	0.046	-89.81243	94.50572
Firm growth	287.4185	188.0871	1.53	0.012	-81.22546	656.0625
gearing	18.01008	317.0988	0.06	0.956	-603.4921	639.5122
Asset utilization	15.46507	103.2506	0.15	0.088	-186.9025	217.8326
Operating cash flows	214.2014	270.3347	0.79	0.428	-315.6449	744.0477
Real GDP growth	7.22514	16.85869	0.43	0.668	-25.81729	40.26756
_cons	-87.13492	370.5824	-0.24	0.814	-813.4631	639.1933

Prob > chi 2 =0.00345

The results from table 3 show that ROA, Firm size and Firm growth and asset utilization have a significant relationship with cash conversion cycle. This is explained by the individual probability values that are less than the significant level of 0.05. The remaining variable seemed to have insignificant relationship to cash conversion cycle. The multiple regression models is also well fitted to explain the relationship between working capital and its determinants because the probability value of the entire model is less than 0.05.

Fixed Effect Multiple Regression Analysis for the Relationship between the Determinants of Working Capital and Cash Conversion Cycle

The results for the fixed effect multiple regression analysis for the relationship between determinants of working capital and cash conversion cycle are presented in table 4 below;

Table 4: Results from fixed effect multiple regression analysis in model 1

Cash conversion Cycle	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
ROA	-327.1178	299.9003	-1.09	0.279	-925.25 271.0144
Firm size	80.07523	227.878	0.35	0.076	-374.413 534.5635
Firm growth	274.049	242.5148	1.13	0.262	-209.6315 757.7294
Gearing	296.1705	463.4183	0.64	0.052	-628.0883 1220.429
Asset utilization	-36.8125	167.9855	-0.22	0.082	-371.849 298.224
Operating cash flows	-227.6545	295.1999	0.77	0.044	-361.1031 816.4121
Real GDP growth	4.287391	18.12733	0.24	0.814	-31.86643 40.44121
_cons	-591.0102	1625.26	-0.36	0.717	-3832.49 2650.469

Prob > chi 2 = 0.042

The results from table 4 above show that Firm size, gearing, gearing asset utilization and operating cash flows have a significant relationship with cash conversion cycle. This is shown by the individual probability values of these variables which are all less than 5% significance level. Out of these independent variables asset utilization and operating cash flows showed a negative relationship while the others showed a positive relationship. The remaining independent variables showed insignificant relationship with cash conversion cycle. The multiple regression model was significant to explain generally the relationship between determinants of working capital and cash conversion cycle because the probability value was 0.0042 which was less than the 5% level of significance.

Hausman Test for the Appropriateness of Fixed and Random Effect Multiple Regression Models for Model 1

The results for Hausman Test for the appropriateness of Fixed and Random Effect Multiple regression for model 1 are presented in table 5 below;

Table 5: Hausman test results for the appropriateness of random effect and fixed effect in model 1

	Coefficients		
	(b)	(B)	(b-B)
	Random	Fixed	Difference
ROA	267.5679	-327.1178	327.1178
Firm size	2.346647	80.07523	-77.72859
Firm growth	287.4185	274.049	13.36956
Gearing	18.01008	296.1705	-278.1604
Asset utilization	15.46507	-36.8125	52.27757
Operating cash flows	214.2014	-227.6545	-13.4531
Real GDP growth	7.22514	4.287391	2.937749

P > chi 2 = 0.0734

Results from table 5 show the difference in coefficients of independent variables in both random and fixed effect model. The Hausman test for the appropriateness of these models show the probability value of 0.0734 which is greater than the significance level of 0.05, so the null hypothesis cannot be rejected hence the random effect model is more appropriate to explain the relationship between the determinants of working capital and cash conversion cycle.

Pesaran CD Test for Serial Correlation of Model 1

After establishing the fact that the random effect is appropriate for model 1, the Pesaran CD test was conducted to check whether there is serial correlation in the multiple regression models. The results for this test are shown in table 6 below;

Table 6: Results for pesaran cd test for serial correlation of model 1

Details	Value
Pesaran's test of cross sectional independence	0.674 Pr= 0.1345
Average absolute value of the off-diagonal elements	0.234

The results from table 6 show the Pesaran's value of 0.674 which is greater than the 0.05 level of significance. Hence the null hypothesis is not rejected which indicates that there is no serial correlation in the random effect model that explain the relationship between determinants of working capital and cash conversion cycle in model 1.

Random Effect Multiple Regression Analysis for the Relationship between the Determinants of Working Capital and Acid Test Ratio

The study also assessed the relationship between the determinants of working capital and the acid test ratio. The random effect multiple regression analysis was conducted for this relationship and the results are displayed in table 7 below;

Table 7: Results from random effect multiple regression analysis in model 2

Acid test ratio	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval]
ROA	0.5033598	0.8727221	-0.58	0.056	-2.213864	1.207144
Firm size	-0.0278653	0.1012724	-0.28	0.783	-0.2263555	0.1706248
Firm growth	0.0538082	0.618809	0.09	0.931	-1.159035	1.266652
Gearing	-0.5700777	0.963872	-0.59	0.045	-2.459232	1.319077
Asset utilization	-0.6403028	0.3025845	-2.12	0.034	-1.233358	-0.047248
Operating cash flows	4.324029	1.040894	4.15	0.013	2.283914	6.364144
Real GDP growth	0.0814853	0.0650058	1.25	0.201	-0.0459237	0.2088942
_cons	1.549042	0.9060953	1.71	0.087	-0.2268719	3.324957

$P > \chi^2 = 0.0371$

The results from table 7 above show that the independent variables namely; ROA, gearing asset utilization and operating cash flows have all significant relationship with acid test ratio. Out of these variables only asset utilization showed a negative relationship with acid test ratio. The remaining variables showed insignificant relationship with acid test ratio so they cannot be used to explain acid test ratio. The multiple regression model is also significant as it can be shown by the probability value of 0.0371 hence it is well fitted.

Fixed Effect Multiple Regression Analysis for the Relationship between the Determinants of Working Capital and Acid Test Ratio

The results for fixed effect multiple regression analysis for the relationship between determinants of working capital and acid test ratio are presented in table 8 below;

Table 8: Results from fixed effect multiple regression analysis in model 2

Acid test ratio	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
ROA	0.4706744	1.207076	-0.39	0.698	-2.878112	1.936764
Firm size	-1.500307	0.917192	-1.64	0.0106	-3.329589	0.3289745
Firm growth	-0.2534639	0.9761041	0.26	0.0296	-1.693314	2.200242
Gearing	-1.537078	1.865225	-0.82	0.0413	-5.257151	2.182996
Asset utilization	-0.960194	0.6761293	-1.42	0.16	-2.308691	0.3883033
Operating cash flows	4.84299	1.188158	4.08	0.023	2.473284	7.212696
Real GDP growth	0.0904018	0.0729612	1.24	0.219	-0.0551147	0.2359182
_cons	11.85972	6.541553	1.81	0.074	-1.186998	24.90644

$P > \chi^2 = 0.0285$

The results from table 8 show that the independent variables namely; firm size, firm growth, gearing and operating cash flows have significant relationship with acid test ratio. Furthermore, firm size, firm growth and gearing showed a negative relationship while only operating cash flows showed a positive relationship. The significance of these relationships is revealed by the individual probability values which are all less than the significance level of 0.05. The fixed effect multiple regression models is significant and fitted because the probability value of the model is less than 0.05 level of significance.

Hausman Test for the Appropriateness of Fixed and Random Effect Multiple Regression Models for Model 2

The Hausman test for the appropriateness of the fixed and random effect multiple regressions for model 2 are presented in table 9 below;

Table 9: Hausman test results for the appropriateness of random effect and fixed effect in model 2

	Coefficients		(b-B) Difference
	(b) Random	(B) Fixed	
ROA	0.5033598	0.4706744	0.0326853
Firm size	-0.0278653	-1.500307	1.472442
Firm growth	0.0538082	-0.2534639	-0.1996556
Gearing	-0.5700777	-1.537078	0.967
Asset utilization	-0.6403028	-0.960194	0.3198912
Operating cash flows	4.324029	4.84299	-0.5189613
Real GDP growth	0.0814853	0.0904018	-0.0089165

$P > \chi^2 = 0.0717$

The results for Hausman test for the appropriateness of fixed and random effect multiple regression analysis for model 2 show the differences between the coefficients of each regression type. The probability value of this test is 0.0717 which is greater than the level of significance of 0.05 so the null hypothesis is rejected. This indicates that the fixed effect model is more appropriate to explain the relationship between determinants of working capital and acid test ratio.

Pesaran CD Test for Serial Correlation of Model 2

The results for model 2 show that the fixed effect model is more appropriate to explain the relationship between the determinants of working capital and acid test ratio. The Pesaran CD test was carried out to check whether there is serial correlation in the fixed effect model. The results for this test are shown in table 10 below;

Table 10: Results for Pesaran cd test for serial correlation of model 2

Details	Value
Pesaran's test of cross sectional independence	0.837 Pr= 0.2056
Average absolute value of the off-diagonal elements	0.307

The results from table 10 show the Pesaran's value of 0.837 which is greater than the 0.05 level of significance. Hence the null hypothesis is not rejected which indicates that there is no serial correlation in the random effect model that explain the relationship between determinants of working capital and acid test ratio in model 2.

7. Conclusions

Working capital is of essence to any company because it helps the company in the daily operations. This brings the need for the financial manager to maintain working capital at the appropriate level to allow the company to run smoothly. It has been observed that aspects such as profitability, gearing, asset utilization, firm size, firm growth and operating cash flows affect the company's working capital levels. This necessitates proper monitoring of these variables so that they don't adversely affect working capital levels hence avoiding financial distress. For instance it has been observed that firm size negatively influences working capital, this indicates that as the company grows, the working capital requirements also increase as a result these companies end up having low working capital because they deal with a lot aspects that require working capital as compared to their smaller counterparts.

So it is recommended that companies should take appropriate measures to ensure that they maintain the appropriate level of working capital after taking into account the factors that affect working capital level. Most importantly, companies should ensure that when making decisions to increase profitability e.g. advertisement, relaxing credit terms to debtors, they should also take into account the effect of increasing profitability of working capital because the findings have indicated that as profitability increases, working capital decreases by increasing cash conversion cycle.

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