Quest Journals
Journal of Research in Business and Management
Volume 5 ~ Issue 4 (2017) pp: 64-68
ISSN(Online) : 2347-3002
www.questjournals.org

Research Paper

Relationship Between the Components of Working Capital Management And Company Returns

[a]AliEsmaeilzadeh,[b]AliMazinani
Aassistant Professor Of Accounting Faculty, Tehran Central Branch Bph.D. Student Of Accounting Faculty, Tehran Central Branch
Corresponding author: AliEsmaeilzadeh

Received 13 September, 2017; **A**ccepted 29 Srptember, 2017 © The author(s) 2017. **P**ublished with open access at **www.questjournals.org**

ABSTRACT: *This research investigates the relationship between working capital components and company returns in Tehran stock exchange accepted companies. To this aim, 90 companies were selected. Different components of working capital management including current ratio, cash conversion cycle, debt collection period, inventory turnover period, and debt payment period over the assets returns which is considered as company returns have been studied in this research. The ratio of debt and firm size which has been measured by normal sales logarithm has been used as control variables. Results show that there is an inverse relationship between variables of working capital management and assets returns. Also, if the period of debt collection, debt payment, inventory turnover, and cash conversion cycle increases, returns of assets will decrease. Accordingly, decreasing the periods of debt collection, debt payment, inventory turnover, and cash conversion cycle companies can raise returns and profitability and create a positive value for their shareholders.*

Keywords: *working capital, working capital management, returns of assets*

I. INTRODUCTION

One of the most important factors in business is capital and it is the greatest means of profit attraction.Any company should have capital to get a result of its operations which is business and gain profit. The importance of business corporates can be understood from their capital. No specified limits have been determined for capital rate and shareholders may increase capital as much as they can. Working capital is of the most important and effective factors in companies to progress. Working capital is an external main source of capital for medium and small companies. These companies have limited access to capital markets and to overcome this problem they use short term debts. These companies' working capital is not an internal issue related to the company, but it is an important index for creditors to evaluate the risk (Şamiloğlu&Demirgunes, 2008). Working capital includes balance sheet current items, i.e. those items should be received or paid less than a fiscal year such as receivables and payables, and because they deal with liquidity and the liquidity speed this issue gets importance. Then, managers can increase corporate value by working capital management and also raise the company profitability ratio. Opposite to this issue can happen by management inefficiency. Generally, working capital is defined as current assets surplus over current debts and it is an index for company liquidity rate. Working capital management has a crucial role in business units' daily performance. Thus, working capital management is an important financial component for the company such that has a direct effect on any firm's liquidity and profitability (Rahman &Naser, 2007).

II. LITERATURE

Working capital has been defined as current assets minus current debts in accounting texts and indicates the companies' investment rate in cash, marketable securities, business receivable accounts, inventory of materials and goods minus current debts. Some researchers define working capital as the sum of assets and debts and their difference as net working capital. In other words, net working capital defines that part of current assets excess of current debts and has been supported through long term loaning and equity (Shabahang, 2008).
The importance of working capital in business units' activities' continuity has caused different strategies to be considered for working capital management. Applying various strategies related to working capital management, profit units can affect company liquidity rate. Each strategy has different risk and returns. Companies' financial managers, regarding the conditions of the company, their personal and individual

characteristics, among the bold or viable strategies and conservative or risk aversion and/or a combination of these two strategies select one of them (RahnamayeRoudposhti, 2010). Increasing importance of working capital management caused this subject to turn into a financial management specialty. There are some expert executive directors spend all their time and energy only on administration of working capital. "Working capital management" is optimum combination of working items, i.e. current assets and debts such that increases shareholders' assets (RahnamayeRoudposhti, 2010).

Padachi (2006) states that for several reasons working capital management is essential for business units' financial health.Firstly, if invested amounts in working capital compared to companies' assets sum are inharmonic, it is possible that these amounts are not used in an efficient condition. Efficiency in working capital management, especially in manufacturing companies is of special importance. In other words, well and regular working capital management results in business unit market value increasing and efficient working capital management can have crucial results and ignoring it can be dangerous for any company. Secondly, working capital management affects liquidity and profitability of business units directly and also their net value. On the other hand, through working capital management, companies' managers expect to be able to have an important effect on company's profitability. Thus, working capital management is one of the important issues of financial management for a lot of companies.

If cash is maintained in an optimum level to pay debts, it indicates the importance of working capital. Practically, working capital management has turned into one of the overdue issues and using sudden appropriate opportunities to invest which is a sign of business unit flexibility and accessibility to raw material, such that it can respond important customers' demand in organizations where a lot of executive directors are involved in working capital management main factors and its optimum level (Lamberson, 1995).

III. REVIEW OF THE LITERATURE

Vishnani and Shah (2007) studied the effect of working capital management policies on electronic industries empirically and showed that there is an inverse relationship between net working capital and profitability. Statistically, their research indicated poor positive correlation between liquidity and profitability, so that it can be concluded that there is no stable (always positive or negative) correlation between liquidity and profitability for the whole industry. Garcia and Solano (2007) tested the effect of working capital management on profitability and concluded that through decreasing the number of receivables and inventories days (increasing their turnover) management can create value for the company and also shortening the cash conversion cycle improves companies' profitability. In a study on companies accepted in Karachi stockexchange, Afza and Nazir (2009) investigated the relationship between working capital management policies and companies' profitability. They concluded that by adopting conservative approach towards investment in working capital and financial supply of working capital managers can change corporate value.

In 2003, Deloof investigated the relationship between working capital management and company's profitability for a sample including 1009 Belgian companies during 1992-1996. He applied the number of receivables accounts, inventories and payable accounts as business credit criteria and inventory procedures. He also used cash conversion cycle as a comprehensive criterion for working capital management. Results of his study showed that managers can increase business unit profitability through decreasing the number of deferred receivable accounts and inventories, and similarlyby decreasing the cash conversion cycle increase company's profitability. In an investigation conducted by Samiloglu and Demirnes (2008) on Turkish manufacturing companies in order to study the relationship between profitability and working capital management showed that receivable accounts period, inventory period, and leverages negatively and importantly affect company profitability, whereas company growth (in most sales) positively and importantly affect company profitability. Nevertheless, cash conversion cycle, company size and permanent financial assets does not have any important effect on investigated companies' profitability statistically.

IV. RESEARCH HYPOTHESES

1. There is a significant relationship between current ratio and company's assets returns.
2. There is a significant relationship between cash conversion cycle and company's assets returns.
3. There is a significant relationship between debt collection and company's assets returns.
4. There is a significant relationship between inventory turnover and company's assets returns.
5. There is a significant relationship between debt payment and company's assets returns.

V. RESEARCH METHODOLOGY

Research statistical population

Population of the research includes accepted companies in Tehran stock exchange that have following features from 2011 to the end of 2015 as the sample, and as a result a number of 90 companies are selected as the sample of this study.

1. For information comparability, the end of companies' fiscal year should be the last day of the year.
2. They do not have fiscal year changing during investigation period.
3. Financial information required for companies should be available during investigation period.
4. Sample should not include financial supply, investment, and insurance.

VI. RESEARCH VARIABLES AND MODEL

Dependent variable is the returns of assets which is obtained through dividing net profit by whole assets.
Independent variables:
Current ratio (CR): obtained through dividing current assets by current debts.
Cash conversion cycle (CCC): obtained through subtracting debt payment period from sum of debt collection and inventory turnover periods (debt collection period+ inventory turnover period-debt payment period)
Average of debt collection period (ACP): dividing receivables by sales multiplied by 365.
Average of inventory turnover (ITID): dividing inventory on cost of sold goods multiplied by 365.
Average of debt payment period (APP): obtained from dividing payable accounts by cost od sold goods multiplied by 365.
Control variables include financial leverage obtained from dividing debts by assets and company size through normal sales logarithm.
Following model has been applied to test research hypotheses:

$ROA_{it}=\beta_0+\beta_1(CR_{it})+ \beta_2(LEV_{it})+ \beta_3(SIZE_{it})+\varepsilon_{it}$
$ROA_{it}=\beta_0+\beta_1(CCC_{it})+ \beta_2(LEV_{it})+ \beta_3(SIZE_{it})+\varepsilon_{it}$
$ROA_{it}=\beta_0+ \beta_1(ACP_{it})+ \beta_2(LEV_{it})+ \beta_3(SIZE_{it})+\varepsilon_{it}$
$ROA_{it}=\beta_0+ \beta_1(ITID_{it})+ \beta_2(LEV_{it})+ \beta_3(SIZE_{it})+\varepsilon_{it}$
$ROA_{it}=\beta_0+ \beta_1(APP_{it})+ \beta_2(LEV_{it})+ \beta_3(SIZE_{it})+\varepsilon_{it}$

Descriptive statistics:

Descriptive statistics of applied dependent and independent variables in research models can be seen in table 1. This table presents an overview of research data.

Table 1: variables descriptive statistics

Variable	Mean	Mode	Max	Min	Standard deviation
ROA	1.2131	0.0674	63.41	-48.255	6.4616
CR	1.3129	1.1915	7.2444	0.2226	0.7460
ACP	812.45	82.401	8101	0.0000	5084.5
ITID	1022.52	158.78	7577	0.0000	4947.6
APP	396.11	35.144	30115	0.0000	1942
CCC	186.05	-2.2055	4258	-1005	2623
LEV	0.6342	0.6333	3.0604	0.0964	0.2623
SIZE	5.7052	5.6978	8.0311	3.8651	0.6445

Research findings

Chaw test results:

To select an appropriate method to estimate mentioned models in different time periods and sections of combined data Chaw test has been applied. Results of Chaw test have been presented in order of the model by table 2:

Statistics	Error level	Accepted method
0.9535	0.6314	Pooled data
0.9551	0.6264	Pooled data
0.9870	0.5291	Pooled data
0.9551	0.6266	Pooled data
0.9626	0.6038	Pooled data

VII. Results of hypotheses

First hypothesis:

Since the error level is 0.0006 which less than 0.01, null hypothesis is confirmed at the error level of 0.01. As a result, there is a positive and significant relationship between current ratio and returns of assets.

Table 3: first model hypothesis test results

Description	hypotheses		
	Ratio	t-static	p-value
CR	23.2055	10.7492	0.3007
SIZE	401439	12.2735	0.0000
LEV	0.5954	0.5312	0.5048
R-squared	0.1713		
Adjusted R-squared	0.1679		
F-static	50.4027		
F(p-value)	0.0006		
D-W	2.0686		

Second hypothesis:

The relationship between cash conversion cycle and returns of assets was investigated to test the second hypothesis. Regarding the obtained results probability related to null hypothesis is 0.0000 which is less than 0.01. Thus, null hypothesis is confirmed at the error level of 0.01 and indicates the inverse relationship between two above-mentioned variables.

Table 4: second model hypothesis test results

Description	Hypotheses		
	Ratio	t-static	p-value
CCC	-9.0905	-1.0900	0.2760
SIZE	4.1767	12.2990	0.0000
LEV	0.0151	0.0183	0.9854
R-squared	0.1715		
Adjusted R-squared	0.1681		
F-static	50.4492		
F(p-value)	0.0000		
D-W	2.0821		

Third hypothesis:

In this step, the relationship between debt collection period and returns of assets was investigated. Results indicate that there is a negative significant relationship between these variables. Since error level is 0.0000 and less than 0.01, third hypothesis is confirmed.

Table 5: third model hypothesis test results

Description	Hypotheses		
	Ratio	t-static	p-value
ACP	-7.7500	-1.7748	0.0763
SIZE	4.2596	12.3751	0.0000
LEV	0.0442	0.0536	0.9572
R-squared	0.1737		
Adjusted R-squared	0.1703		
F-static	51.2373		
F(p-value)	0.0000		
D-W	2.0866		

Fourth hypothesis:

The relationship between inventory turnover period and returns of assets was investigated in this hypothesis. Results indicate an inverse significant relationship between these variable. Because error level is 0.0008 and less than 0.01 this hypothesis is confirmed.

Table 6: fourth model hypothesis test results

Description	Hypotheses		
	Ratio	t-static	p-value
ITID	-9.1101	-2.0164	0.0441
SIZE	4.3030	12.4037	0.0000
LEV	0.0584	0.0709	0.9435
R-squared	0.1747		
Adjusted R-squared	0.1713		
F-static	51.6052		
F(p-value)	0.0008		
D-W	2.0832		

Fifth hypothesis:

The relationship between debt payment period and returns of assets was investigated in this hypothesis. Regarding the error level which is 0.0015 and it is less than 0.01; this hypothesis is confirmed and shows an inverse significant relationship between these two variables.

Table 7: fifth model hypothesis test results

Description	Hypotheses		
	Ratio	t-static	p-value
APP	-0.0003	-1.9516	0.0514
SIZE	0.0000	12.3937	4.2896
LEV	0.0346	0.0420	0.9665
R-squared	0.1744		
Adjusted R-squared	0.1710		
F-static	51.5019		
F(p-value)	0.0015		
D-W	2.0755		

VIII. CONCLUSION

Results show that there is a direct positive relationship between current ratio and returns of assets and an inverse significant relationship between debt collection period, inventory turnover period, cash conversion cycle, debt payment period, and companies' returns of assets. Increasing debt collection period company returns of assets decreases and by managing debt collection and dwindling this period; good returns can be obtained. Also, by administrating inventories and decreasing the time of cash conversion cycle favorable returns and profitability are obtained.

REFERENCES

[1]. Shabahang, R. (2008). Financial management. Auditing Organization Publications, Volume 1 & 2.
[2]. Nikoumaram, H, &RahnamayeRoudposhti, F., &Heibati, F. (2010). Financial management foundations. Volume 1 & 2. Termeh Publications.
[3]. Padachi, K. (2006). "Trends in Working Capital Management and its impacton firm's performance." An analysis of Mauritian small manufacturing firms"International Review of Business Research Papers, Vol. 2, pp: 45-56.
[4]. Şamiloğlu, F. and Demirgüneş, K. (2008), "The Effect of WorkingCapital Management on Firm Profitability: Evidence from Turkey".The International Journal of Applied Economics and Finance, Vol. 2,No. 1, 44-50.
[5]. Rahman, A.,& Nasr, M. (2007). "Working Capital Management andProfitability – Case of Pakistani Firms" International Review of BusinessResearch Papers, Vol. 3 (2), pp: 275-296.
[6]. Vishnani, S. & K. Shah, B., (2007), "Impact of Working CapitalManagement Policies onCorporate Performance—An EmpiricalStudy", Global Business Review, Vol. 8, No. 2, 267–281
[7]. Juan García-Teruel, P. and Martínez-Solano, P. (2007), "Effects ofworking capital management on SME profitability", InternationalJournal of Managerial Finance, Vol. 3, No. 2, 164-177
[8]. Afza, T. and Nazir, M.S. (2007) . "Is it better to be Aggressive or conservativein ManagingWorking Capital?", Printed at Singapore Economic ReviewConference (SERC) ,pp. 1-15.
[9]. Deloof M. (2003), 'Does Working Capital ManagementAffect Profitability of Belgian Firms?','Journal ofBusiness Finance & Accounting', 30 (3) & (4), p. 585Blackwell Publishing.
[10]. F. Samiloglue& k.Demirnes ,2008,"The Effect Of WorkingCapital Management On Firm Profitability:Evidence FromTurkey". The International Journal of Applied Economics andFinance.
[11]. Lamberson.M,1995"Changes In Working Capital Of SmallFirms In Relation To Changes In Economic Activity"Mid-American Journal Of Business, Vol.10, N. 2, Pp.45-50.

AAliEsmaeilzadeh. "Relationship Between the Components of Working Capital Management And Company Returns." Quest Journals Journal of Research in Business and Management, vol. 05, no. 04, 2017, pp. 64–68.