

The Impact of Management on the Operational Efficiency of Listed Companies in Tehran Stock Exchange

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Abstract

This study examined the relationship between working capital management and performance of listed companies Stock Exchange in Tehran. A total of 40 companies from the cement industry for the period 2007 to 2010 of which only 25 were selected for this study had the condition. In order to achieve the objectives, this study surveys the exploration of correlation regression analysis and used the curve obtained, the regression equation. To test the hypothesis, quantitative analysis was used as a method. The results showed a negative relationship between the variables of working capital management and the company's performance and the only variable cash conversion cycle did not show a significant relationship. There is often a negative correlation between the variables studied. This study is based on five assumptions impact of working capital management on corporate profitability is examined. Therefore, the results suggest that the variables in working capital (average collection of receivables, average inventory turnover period, the average net debt and average transaction cycle) and net operating profit is significant negative correlation Net cash conversion cycle and only illustrates the relationship is not significant. Thus, it showed that in debt collection and debt payment period, the turnover of inventory and net trade cycle to reduce the profitability of companies will increase.

Keywords: Operating Net Income, Collection of Receivables, Inventory Turnover Period.

1. Introduction

All printed material, including text, illustrations, and charts, must be kept within the parameters of the 8 15/16-inch (53.75 picas) column length and 5 15/16-inch (36 picas) column width. Please do not write or print outside of the column parameters. Margins are 1 5/16 of an inch on the sides (8 picas), 7/8 of an inch on the top (5.5 picas), and 1 3/16 of an inch on the bottom (7 picas).

2. Main Title

Soenen (1933) the relationship between the business cycle as a measure of net working capital and return on investment in US companies investigated. Chi-square test results, a negative correlation between the duration of the business cycle and a return on net assets shows. Moreover, the negative, depending on the type of industry, the industry is different. An important relationship for about half of the companies surveyed indicated that the results may vary from industry to industry. Soenen and Shine (1988) The relationship between a measure of the cash conversion cycle and profitability for a large sample of US companies for the period 1975 to 1994 were reviewed. They found a strong negative relationship between the managers can suggest is that by reducing the cash conversion

cycle to a reasonable minimum value for the shareholders. Mark Deloof (2003) the relationship between working capital management and profitability for a sample of Belgian company in 1992-1996 be evaluated. His days of receipt of accounts receivable, inventories and accounts payable as a commercial credit criteria and procedures used inventory. As well as the cash conversion cycle as a comprehensive measure of working capital management can be used. The results of the survey showed that business managers can profit by reducing accounts receivable days outstanding and inventory increase and similarly reduce the cash conversion cycle increased profitability The Company. Other research by Lazaridis and Tryfonidis (2006) in Greece. In this study, 131 companies were surveyed between the years 2001-2004. The results suggest that the relationship between the cash conversion cycle and significant profitability there. Managers can maintain an appropriate level of cash conversion cycle and its components, including the collection of receivables, inventory cycle and increase the profitability of the bank creditors. Raheman and Nasr (2006) in their study of the relationship between working capital and liquidity management companies with profitable companies examined. In this study, 94 companies were surveyed between the years 1999 to 2004 period. In this study, the cash conversion cycle, inventory turnover, the bank creditors, collection period, current ratio, operating net income, firm size, debt ratio and the ratio of financial assets, was used. The results, based on the Pearson correlation and regression analysis was performed, stating the Between the cash conversion cycle and its components, including inventory turnover period, the profitability of bank creditors and the debt collection companies with significant inverse relationship exists. The results showed that the company's liquidity and profitability of their debt with significant inverse relationship exists. In addition, the results suggest that there is a significant correlation between the size of the company and its profitability. Samiloglu and Demirnes (2008) was carried out by him on a sample of Turkish manufacturing companies during the period 1998-2007 to the relationship between profitability and working capital management showed that the accounts receivable, inventory of goods and leverage the significant negative impact on the profitability of the company. While the growth of the company (in terms of sales) are positive and significant impact on the profitability of the company. However, the cash conversion cycle, size and financial assets proved statistically significant impact on the profitability of companies is investigated. The results suggest that the profitability of the company through the reduction of accounts Receivable and inventory increases.

3. Hypothesis Research

Check whether the policies of working capital management on the performance of listed companies in Tehran Stock Exchange will be effective and whether between different components of capital management turn benefit the companies listed in Tehran Stock Exchange were there. For the purposes of the above, the following hypotheses are proposed and tested:

- 1) The average collection period and net operating income is a meaningful relationship.
- 2) The inventory cycle and net operating income is a meaningful relationship.
- 3) Between the average pay of debt and net operating income is a meaningful relationship.
- 4) The cash conversion cycle and net operating income is a meaningful relationship.
- 5) Net trading profit and net operating the cycle there is a significant relationship.

4. Research Method

This study surveys - Exploration of correlation regression analysis Used (the average of all the distribution curve is connected to) the curve obtained, the regression equation is called the regression equation. In this study to test the hypothesis the method used is quantitative analysis. The Pearson correlation model to assess the degree of correlation between the variables used for working capital management and profitability is. Then, to estimate the relationship between cause and effect between the variables of profitability Management of working capital of the regression analysis will be used. Also, using the coefficient of determination Variation in the dependent variable to the independent variables was assessed. In this study, the test (t) student to verify the hypothesis test and Fisher statistics to assess the adequacy of the model used.

$$NOP_{it} = \beta_0 + \beta_1 (ACP_{it}) + \beta_2 (GWCTR_{it}) + \beta_3 (CATAR_{it}) + \beta_4 (CLTAR_{it}) + \beta_5 (FDR_{it}) + \beta_6 (LOS_{it}) + \beta_7 (SG_{it}) + \beta_8 (CR_{it}) + \varepsilon_{it}$$

5. Regression Analysis

The results of various criteria, including working capital and firm performance (average collection period, the average debt payment period, the average inventory turnover period, the net cash conversion cycle of criticism and transactions) is shown below. The first part is a descriptive analysis of the data will be analyses. The second and third, respectively, related to the analysis of correlation coefficients and statistical tests of the variables.

Table1. Descriptive analysis of variables

variable	Coefficient	Std. Error	t. Statistic	P-value
C	0.127	0.110	1.148	0.254
ACP	-0.091	0.000	-2.128	0.036
GWCTR	0.045	0.011	4.154	0.000
CATAR	0.602	0.130	4.636	0.000
CLTAR	0.129	0.100	1.287	0.202
FDR	-.143	0.053	-2.700	0.008
LOS	-.023	0.017	-1.368	0.175
SG	0.025	0.010	2.566	0.012
CR	0.026	0.030	0.866	0.389
R-square	0.877			
Adjusted R-square	0.865			
Durbin-Watson Stat	1.614			
F-statistic	70.715			
P-value	0.000			

6. Descriptive Analysis of Data

Descriptive statistics in table 1 shows that the average collection period of 40 days and a standard deviation of 42 days, 100 days and standard deviation of the average pay of 121 days, 186 days and the average inventory turnover SD 90 days, the average cash conversion cycle 126 days and 152 days and average net cash SD 46 trading days and a standard deviation of 142 days. The ratio of current assets to total assets of 30%, the ratio of current liabilities to total assets 33% (indicating that the current debt is now greater than its current assets) ratio Financial debt 29% (indicating that about 29% of assets through the supply tended to be made). Gross working capital ratio of 1.68% (1.6 times current assets shows that net sales), the size of the company through the log of current assets 5.64, 36% sales growth and a measure of company performance (net operating profit) before. 28% with a standard deviation is 14%.as you can see, the index measures the performance of working capital (average collection period, the average inventory turnover, average debt payment period, the average cash conversion cycle and what the average net transactions) negative (inverse), and only for the variable cycle cash conversion relationship is not significant. This is not too surprising because the three components of the cash conversion cycle (average circulation of collection of receivables, average inventory turnover, the average period for payment of debt) significant negative correlation with the index of medium-term profitability and solvency of average total circulation of collection claims and average inventory turnover to reach the cash conversion cycle will be deducted. These results are similar to findings Deloof (2003).

Table 2. The analysis of correlation coefficients

Variable	NOP	ACP	ITID	APP	CCC	NTC	CATAR	CLTAR	GWCTR	FDR	LOS	CR	SG
NOP	1												
ACP	-.292**	1											
ITID	-0.517**	.290**	1										
APP	-.307**	.218*	0.05	1									
CCC	-.014	.272*	.627*	-.594**	1								
NTC	-.316**	0.207	0.158	.745**	0.174	1							
CATAR	.896**	-.211*	-.378	.254*	-0.079	.260*	1						
CLTAR	.314**	-.173	-.292**	.276**	-.438**	-.058	.282--	1					
GWCTR	-.295**	.016	-.146	0.171	-.226*	0.168	-.535**	0.035	1				
FDR	-.764**	.214*	.434**	.345**	0.04	0.195	-.778**	-.073	.326**	1			
LOS	-.337**	0.033	-.117	0.124	-.158	-.198	-.357**	-.032	0.333	0.194	1		
CR	.129	.289**	0.158	0.089	0.101	-.079	-.212*	-.033	0.133	.332**	0.011	1	
SG	.810**	-.191	-.302**	-.315**	0.02	.357**	.901**	-.030	-.517**	.736**	-.421**	-.206*	1

The correlation coefficient between the leverage ratio (debt) financing and special operating profit represents a significant negative correlation, indicating that the fact that the utilization of debt the company will reduce profitability. The correlation between the ratio of current liabilities to total assets and net operating profit is positive. Company sales are calculated as the log shows a negative correlation exists between size and profitability. The sales growth is associated with an increase in profitability. Because the increase in the sales increases Profit is. It is also the only current control variables associated with net operating profit yet. The data indicate that there is a high correlation between standards of working capital.

7. The Results of the Study Hypothesis Test

Table 3 shows the significant level of collection is changing. There was a significant negative correlation between the average hypotheses tests conducted indicate the collection and is net operating profit. In fact, indicating that an increase in the collection of receivables, net operating profit will be reduced and vice versa.

Table 3. The average impact on the performance of the collection company

variable	Coefficient	Std. Error	t. Statistic	P-value
C	0.127	0.110	1.148	0.254
ACP	-0.091	0.000	-2.128	0.036
GWCTR	0.045	0.011	4.154	0.000
CATAR	0.602	0.130	4.636	0.000
CLTAR	0.129	0.100	1.287	0.202
FDR	-.143	0.053	-2.700	0.008
LOS	-.023	0.017	-1.368	0.175
SG	0.025	0.010	2.566	0.012
CR	0.026	0.030	0.866	0.389

R-square	0.877
Adjusted R-square	0.865
Durbin-Watson Stat	1.614
F-statistic	70.715
P-value	0.000

With the current debt to total assets ratio control variables, firm size, and the current ratio because these variables proved to be greater than 5% significance level, the null hypothesis tests Related accepted and thus removed from the regression equation. In the second picture sig inventory turnover and inventory turnover suggest that the net operating profit there is a significant negative relationship. This negative correlation (inverse) is the fact that the increase of inventory turnover, net operating profit will decline and vice versa.

Table 4. Impact of the inventory cycle on firm performance

variable	Coefficient	Std. Error	t. Statistic	P-value
C	0.235	0.119	1.969	0.052
TITD	-.136	0.000	-2.730	0.008
GWCTR	0.037	0.011	3.317	0.001
CATAR	0.582	0.128	4.564	0.000
CLTAR	0.104	0.1	1.043	0.3
FDR	-.116	0.053	-2.187	0.032
LOS	-.033	0.017	-1.944	0.055
SG	0.021	0.009	2.231	0.029
CR	0.023	0.029	0.795	0.429
R-square	0.882			
Adjusted R-square	0.87			
Durbin-Watson Stat	1.656			
F-statistic	73.537			
P-value	0.000			

Regarding the control variables, the ratio of current liabilities to total assets, firm size, and constant current ratio because the level of significance of these variables is greater than 5%, the null hypothesis tests will be accepted and therefore the regression equation out are. In the second picture sig average debt payment period is that between the average pay of debt and net operating profit is significantly negative. This negative correlation (inverse) reflects the fact that an increase in the average duration of debt, net operating profit will decline and vice versa.

Table 5. The impact of debt on the company's performance

variable	Coefficient	Std. Error	t. Statistic	P-value
C	0.068	0.109	0.625	0.534
APP	.106	0.000	-2.384	0.02
GWCTR	0.047	0.011	4.413	0.000
CATAR	0.558	0.13	4.304	0.000

CLTAR	0.231	0.103	2.242	0.028
FDR	-.125	0.053	-2.338	0.022
LOS	-.019	0.017	-1.179	0.242
SG	0.019	0.009	2.091	0.04
CR	0.038	0.03	1.297	0.198
R-square	0.879			
Adjusted R-square	0.867			
Durbin-Watson Stat	1.525			
F-statistic	71.829			
P-value	0.000			

Regarding the control variables, size and constant current ratio because the level of significance of these variables is greater than 5%, Test the null hypothesis is accepted and thus removed from the regression equation. The fifth image sig average period between the average pay of debt and net operating profit there is no significant relationship. As the image correlation was observed between the cash conversion cycle profitability index is a negative relationship, but this relationship is not significant. This is not too surprising because the three components of the cash conversion cycle (average circulation of collection of receivables, average inventory turnover, and the average period for payment of debt) significant negative correlation with the profitability index and medium-term debt Total average circulation of collection and average inventory turnover to reach the cash conversion cycle will be deducted.

Table 6. The results of the cash conversion cycle impact on company performance

variable	Coefficient	Std. Error	t. Statistic	P-value
C	0.099	0.12	0.821	0.414
CCC	-5.716	0.000	-.126	0.9
GWCTR	0.047	0.011	4.197	0.000
CATAR	0.593	0.134	4.432	0.000
CLTAR	0.154	0.11	1.4	0.165
FDR	-.145	0.055	-2.662	0.009
LOS	-0.022	0.017	-1.282	0.204
SG	0.02	0.01	2.048	0.044
CR	0.032	0.031	1.033	0.305
R-square	0.87			
Adjusted R-square	0.857			
Durbin-Watson Stat	1.602			
F-statistic	66.363			
P-value	0.000			

In the second picture sig average between the average cycle of debt, net trading and net operating profit is significantly negative. This negative correlation (inverse) reflects the fact that an increase in net trade cycle, net operating profit will decline and vice versa.

Table 7. The net result of the cycle of transactions on the company's performance

variable	Coefficient	Std. Error	t. Statistic	P-value
C	0.099	0.109	1.022	0.31
NTC	-9.742	0.000	-2.149	0.035
GWCTR	0.05	0.011	4.692	0.000
CATAR	0.724	0.14	5.153	0.000
CLTAR	0.074	0.105	0.704	0.483
FDR	-.133	0.053	-2.496	0.015
LOS	-.022	0.017	-1.309	0.194
SG	0.019	0.009	2.056	0.043
CR	-.002	0.033	-.060	0.953
R-square	0.878			
Adjusted R-square	0.866			
Durbin-Watson Stat	1.612			
F-statistic	70.257			
P-value	0.000			

Regarding the control variables, the ratio of current liabilities to total assets, firm size, and constant current ratio because the level of significance of these variables is greater than 5%, Test the null hypothesis is accepted and thus removed from the regression equation

8. Conclusion

This study is based on five assumptions impact of working capital management on corporate profitability is examined, The results suggest that the variables in working capital (average collection of receivables, average inventory turnover period, the average net debt and average transaction cycle) and net operating profit is significant negative correlation Net cash conversion cycle and only illustrates the relationship is not significant. Hypothesis first, second, third and fifth confirmed case is that the criteria for working capital and performance of firms listed in the Tehran Stock Exchange There is an inverse relationship. Fourth hypothesis suggests that the cash conversion cycle and performance of firms listed in the Tehran Stock Exchange; there is no significant relationship, so the fourth hypothesis is rejected. The correlation coefficient indicates the fact that the criteria for working capital and corporate performance are highly correlated.

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