Impact of Working Capital Management on Profitability: A Case of Pakistan Textile Industry.

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ABSTRACT

To be successful in short run, management of working capital was significantly important for firms. Improper management of working capital negatively affects the firm profitability. Optimum level of working capital can maximize firm value and ultimately profits. The current study was taken to examine the impact of working capital and its components on return the assets of Pakistan Textile Industry. Return on assets was used as a proxy for firm profitability. For this purpose annual data of 46 listed companies were taken from textile industry as a sample for a period of (2003 -2009).

For the quantification relationship of return on assets was taken as a dependant variable and number of day's account receivable, number of day's inventory, number of day's account payable and cash conversion cycle were taken as independent variables. The data was in panel form therefore, the ordinary least square method was used. The results revel that all the independent variables, number of day's account receivable, number of day's inventory, number of day's account payable and cash conversion cycle negatively affected the dependant variable return on assets. Thus, it was concluded that shorten the period from sales to cash receipt, high the firm's ability to generate profits.

Key Words: Working capital, Textile industry, Profitability, Panel data, Regression, OLS method, Optimum level and Correlation.

INTRODUCTION

Working capital management is concerned with the firm current assets management decision. The shareholders hire professional personnel to determine the resource allocation to working capital. The current assets consist of inventories, cash and cash equivalent. Firms are struggling to compete for scarce resources in short run. They need huge amount to invest in working capital. To avail the short term benefits associated with timely decline in the raw materials prices and to undertake other investment opportunities available in the capital market. The corporate finance literature outline the importance of working capital and explained that working capital and liquidity are directly related with firm profitability.(Nasir, 2007) examined the equity market of Pakistan and found out that firms having more liquid investments were more profitable than those having less liquid investments. Their finding confirmed that current assets consist of about three fourth of all the firm's assets. On the other hand, firms that have low liquidity facing high risk. The stakeholders receive dividend and retain profit for speculative and precautionary motives. If working capital is not managed properly then firm will not only lose their economic resources in short run but also their long run success become uncertain and probably no dividend payments to stockholders. Therefore, firm's value is directly related with optimal and efficient use of working capital. The managers are trying to bring the trade off between the liquidity and profitability for effective unitization of working capital. Every business

tries to generate positive cash flows. Because the positive cash flows consider just like blood in human body. Laughim (1998) found that cash conversion cycle is the prime tool used to measure the financial performance of the companies. Besley (2005) explained that cash conversion cycle is the time involved from purchasing the raw material, convert them into finished goods and receiving the cash from credit sales.

The company's success and cash management depend on the creditors trust on the business because the creditor are the prime loan provider to the business. It is in the best interest of the company to deal skillfully with both of the company suppliers and creditors. Delay payment can cause the firm to lose its credit worthiness. Companies try to maximize the sale figure and to ensure not to tie the scarce funds in inventories. Often the wholesalers enjoy the credit sale to know about the product feature and benefit before paying for it (Jegers & Deloof, 1996). The delaying of payment seriously harms profitability and reduces the potential discount benefit. There is direct relationship between the cash conversion cycle and profitability. The shorter the collection period, the higher will be company profitability. Further, it reduces risk of default. Often firms employ lenient credit policy to increase the sale which ultimately cause to decrease the days of receivables conversion into cash. Therefore, companies try to reduce the cash conversion cycle to increase the overall profitability.

Financial management literature primarily focuses on capital investment and efficient utilization of resources in the context of risk return trade off. Investments in current assets are carefully examined by firm's corporate body due to the fact that it directly affects operations. The current study aims to examine the impact of working capital components on profitability of textile firms. This study will assist the investors in their investment decision in the textile industry. Further, it will also assist corporate managers in capital structure decisions and to quantify and analyze the impact of various investor combinations of financial resources on return on assets.

OBJECTIVE OF THE STUDY

- To know about the changes in cash conversion cycle and its impact on firm's profitability of Pakistan textile industry.
- To help investors to effectively manage their financial resources in short run.

LITERATURE REVIEW

(Delop M, 2003) found a significant negative relationship between operating income and number of days account receivables , number of days inventory and number of days account payable by studying 1009 Belgium firms for a period of (1992-1996). (Nasir, 2007) examined the profitability of Pakistani firms in short run. According to their study most of the company's investments are in current assets. Because working capital has a direct impact on overall profitability of Pakistani firms. Using the panel data and employing the Ordinary Least Square methods, they found a negative relationship between profitability and cash conversion cycle, receivables turnover, inventory turnover and number of days account payable. Further, they explained that managers can create value for their

shareholders by reducing the receivables turnover, inventory turnover and cash conversion cycle. The negative relationship between accounts payable and profitability indicates that delaying payments reduces firm's value. The studies of Schwartz (1974) and Deloop & Jegers (1996) explained that high profits increase firm's ability to lend more money to its customers and low profitability reduces allocation of cash to account receivables. Pedro, (2007) examined that working capital is highly important for low capital companies. Short term investments are the prime source of generating profits for companies that have low capitalization. They further explained that working capital components directly affect the return on assets. They concluded that timely investment in current assets increases firm's profitability. Loannis, (2006) examined gross profit and cash conversion cycle of different firms. The study confirmed that corporate body is interested in firms operating profit and found a significant negative relationship between operating profit and cash conversion cycle. It was added that managers can further enhance the overall value of the firm by keeping the cash conversion cycle and its components at optimal level. Afza, (2008) examined 268 public limited companies listed in Karachi Stock Exchange. Employing the regression analysis and descriptive statistics, their findings conclude that there is significant difference in industries investment in current assets and financing decisions. The same effect remained constant for six year by using the rank order correlation.

RESEARCH METHODOLOGY

This section provides deep inside to the sample, variable and methodology applied to outline the finding of the study.

Generally most of the working capital management theories predict negative or positive relationship between cash conversion cycle and its components which conclude that when the probability becomes high returns and risk of the financial distress are also high. The current study was carried to test empirically the impact of working capital on return of assets of Pakistan Textile Industry. For this purpose 46 listed companies were taken from textile industry as a sample for the period of (2003 -2009). Annual data was used in this study. Data were collected from karachi Stock Exchange and annual financial statements of the companies i.e. balance sheet analysis published by State Bank of Pakistan.

Table 1. Variable, Abbreviation and Measurement

Variables	Abbreviations	Measurement
Return on assets	ROA	Return on assets was calculated earnings before taxes as percentage of total assets.
Number of day's account receivable	NODAR.	Account receivable in days was calculated by receivables divided by credit sales and multiplying by 365 days.
Number of day's inventory	NODI.	Average inventory was divided by cost of goods sold and multiplying by 365 days.
Number of day's account payable	NODAP	To calculate, NODAP, the account payable was divided by purchase and multiplying by 365 days. .
Cash conversion cycle	CCC	The cash conversion cycle was calculated by account receivables in days plus inventory turnover in days minus account payable in days.

Sample Size:

A sample size 46 firms was taken from 187 listed textile firms. Textile industry is one of the paramount revenue generating sector and also provides thousands of job opportunities to a skillful labor of our country (15 million workers were employed by the textile sector. It contributes 8.5% to GDP. The textile sector contributes about 53% of our total exports in 2010. The companies that were selected as sample have significant contribution to the industry and all relevant financial information is available for the seven years. The present study was carried to assist the investors to know the financial performance of textile industry and quantitatively make their investment decisions. For the last few decades a lot of research has been done in the same area with the objective to provide such a plate-form that enables investors to earn maximum returns, while lowers their risks associated with their investment. Pakistan remained fourth among the top eight textile exporting countries of the world and a member of a world club of textile exporters. Pakistan textile exports reached to US$ 10 billion in fiscal year 2009. Some of the big players from Pakistan which are also a part of the sample used in the study play a major role in the export of textile products to all part of the world including Europe, Far East, Gulf Countries and America. They are Indus Dying and Manufacturing Company, Ata Textile Mills Limited, Fazal Textile Mills, J A Textile Mills, Nishat Textile and Sppining Mills, J K. Spinning Mills, Artistic Denim Mills and Sapphire Textile Mills.

Regression Model:

Regression is used to predict the values of quantitative outcome variable using several other predicative variables. Simple regression shows the collective effect of independent variables on the dependent variable.

$$ROA_{it} = \beta o + \beta_1 NODAR_{it} + \beta_3 NODI_{it} + \beta_2 NODAP_{it} + \beta_4 CCC_{it} + \varepsilon_{it}$$

Where

B_o = Intercept

B_i = Co-efficients of Predictors

ROA_{it} = Return on asset of the i^{th} firm for the t^{th} time period

$NODAR_{it}$ = Number of day's account receivable of the i^{th} firm for the t^{th} time period

$NODI_{it}$ = Number of day's inventory of the i^{th} firm for the t^{th} time period

$NODAP_{it}$ = Number of day's account payable of the i^{th} firm for the t^{th} time period

CCC_{it} = Cash conversion cycle of the i^{th} firm for the t^{th} time period

ε_{it} = Error term.

RESULTS AND DISCUSSION

This section explained the impact and magnitude of working capital management on return on assets of textile industry in Pakistan.

Descriptive Statistics:

The empirically analysis of textile sector consists of, means, standard deviation, skewness and kurtosis of all variables. The results confirmed that there is abnormal variation between means and standard deviation of all variables used in this study. The following table 2 indicates the Descriptive statistics:

Table 2. Descriptive Statistics

Statistics	Mean	Standard Deviation	Minimum	Maximum	Count
ROA.	61.4289	385.43656	-100.00	2597.10	322
NODAR.	37.4652	74.26198	.00	1235.10	322
NODI.	-2.8488	40.49511	-333.30	212.20	322
NODAP.	23.2503	111.29283	-70.67	607.00	322
CCC.	107.4773	149.27986	.70	870.50	322

The mean value of ROA is 61.42, and standard deviation of 385.43 the difference is abnormal. The difference between the means and standard deviation of NODAR is 36.79 which is also abnormal. The mean of NODI is -2.84 and standard deviation is 40.49 showing a difference of 38.01 which is abnormal. Also the mean of NODAP is 23.25 and standard deviation is 111.29 which is also abnormal. Means and standard deviation of CCC is 107.47, 149.27 respectively, which show a difference of 41.80 which is also abnormal.

Correlation Matrix: The correlation is presented in the following table.

Table 3. Correlation Matrix

	ROA	NODAR	NODI	NODAP	CCC.
ROA	1.000				
NODAR	-.087	1.000			
NODI	-.028	-.036	1.000		
NODAP	-.490	-.084	.075	1.000	
CCC.	-.094	-.089	.070	-.011	1.000

The relationship among variables was checked through pair-wise correlation. The coefficient value of less than 0.80 shows that variables was not strongly correlated and no multicollinearity was found.

Regression Results: The detailed results of estimated parameters and other relevant information are shown in the following table.

Table 4. Results of Regression

Variables	Coefficient	Std. Error	t-Statistic	Prob.
Intercept	8.978	12.469	.720	.472
NODAR	-.869	.104	-8.391	.000
NODI	-.468	.238	-1.962	.051
NODAP	-3.982	.082	-48.800	.000
CCC	-.278	.069	-4.051	.000

Significance of the coefficients:

The t-statistics shows the individual coefficient is significance and p value shows the exact level of significance if individual slop coefficient significance. The t-value of number of days account receivable is -.869 and p value is .000 show that of number of days account receivable is statistically significant and negative sign explains that one time decrease in number of days account receivable bring a .869 increase in the dependent variable i.e. return on assets . The t-value of number of days inventory is -.468 and p value is .051 which show that number of days inventory is significant and indicating that shortening the inventory turnover increases firm is profitability. The t-value of number of days account payable is -3.982 and p value is .000 shows that the variable is statistically insignificant and indicating that delaying payments increase firm profitability. The t-value of cash conversion cycle is -.278 and p-value is .000 show that the cash flow ratio is statistically significant. The above significance negative slop coefficients confirm the findings of (Delop, 2003).

Diagnostics of Regression model:

Table 5. Key results of diagnostic statistics

Statistics	Values
R-squared.	.920
Adjusted R-squared.	.918
Prob (F-statistic).	0.000
Observation.	322

Diagnostics statistics confirmed the correlation coefficient results. The empirical finding showed that all the independent variables are responsible for the overall change of 92.0% in the dependant variable i.e. Return on assets. The significance of F-statistics value confirms that model is good predicator of explaining the impact of all independent variables on dependent variable.

CONCLUSION

From the results we conclude that working capital management represents a firm is financial position in terms of liquidity and profitability. We conclude that proper allocation of firms current resources positively affect the company growth. Conversely low investment in current assets responds negatively to company value creation and also raise the demand for credit. From the empirical finding we conclude that all the independent variables (cash conversion cycle, receivables turnover, inventory turnover, payable in days) have significant negative impact on dependent variable i.e. return on assets.

The analysis also confirmed that cash conversion cycle has negatively associated with return on assets which means that the company have timely availability of cash and cash equivalent and can achieve the benefits of discount by making early payments. Our findings is with perfect conformity with the finding of (Shine et al,1998) they studied the American firms for a period of 1975-1994 and found a significant negative relationship between cash conversion cycle and firm profitability. The finding suggests that the managers should run the business carefully and properly manage current resources. We found that if shorten the

period, to receive payments from customers on due dates, receivables turnover can positively contributes in overall firms value maximization. If the company is not able to receive payment on due date, then it harms its effectiveness and efficiency because they will wait for a longer period of time to pay its bills. Also they will not be able to take the advantage of discount on early payments. Negative significant relationship between inventory turnover in days and return on assets indicating that lesser the time involve in turning of inventory into sales, high the earning before interest and payments.

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