Effects of Working Capital Management on Profitability of Manufacturing Firms of Pakistan

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Abstract

The aim of this paper is to inspect the tendencies in working capital management and its impact on firms' performance of Pakistani firms listed on Karachi Stock Exchange. Return on Asset (measure of profitability) is used as a dependent variable to investigate the relationship between corporate profitability and working capital management for a sample of 120 manufacturing firms for a period of 7 years (2008 -2014), using panel data analysis. Accounts Receivable Days (AR) Inventories Days, Account Payable Days (AP) and Cash Conversion Cycle (CCC) are used as key variables of the study. Results of the regression analysis display that high investment in account receivables and inventories is linked with lower profitability. We found significant negative relation between Profitability and Accounts receivables days, Inventories Days, Account Payable days and Cash conversion cycle. We found that the components of working capital have strong influence on the profitability of manufacturing firms of Pakistan. Our results shows that well-functioning working capital management plays an instrumental role in profitability and growth of firms and firms can enhance their profitability through efficient management of the components of working capital.

Keywords: Profitability, Accounts Receivables Days, Inventories, Accounts Payable Days, CCC, Karachi Stock Exchange, Working Capital Management, Firm Performance.

Introduction

It has been long debated in accounting and finance literature whether working capital management play a significant role in the profitability and growth of a company. Findings of some recent empirical literature show that well-functioning working capital management plays an instrumental role in profitability and growth of firms and that the causality runs from efficient working capital management to profitability and growth. Researchers have agreed on the central role of efficient working capital management, still the concept supporting the empirical and theoretical work is considerably in progress.

The importance of working capital management for corporations has been emphasized in all financial management and corporate finance textbooks (Aktas et al, 2015). The role of working capital management and profitability is very vital and significant in performance of a firm (Abdul Rehman 2012). Working capital is the difference between current assets and current liabilities. Currents assets comprise of cash, Account receivables, Inventories and

other current assets while current liabilities includes Account payable, short term loans and other current liabilities (Iqbal, & Zhuquan, 2013). Working capital management involves the management of inventories, accounts receivable, accounts payable, and cash. The main purpose of working capital management is to make sure that the company always maintains sufficient cash flow to meet its short-term operating costs and short-term debt obligations. In short working capital management is the management of current assets and current liabilities of a firm.

The industrial sector of Pakistan is confronting severe challenges due to continuously increasing competition in the market as a result of denationalization, liberalization and globalization. As a result, the industrial sector of Pakistan is adopting indispensable changes and alterations in their liquidity management and working capital management. As we know that success and failure of a business is heavily dependent on the efficient management of liquidity and working capital management. Thus the financial managers of firms try their utmost to manage efficiently and effectively the liquidity and working capital of their firms in order to maximize shareholders wealth and to earn the best possible returns on their investments.

We have found a divergence effect of variables of the study on the profitability of manufacturing firms of Pakistan. Regarding the effect of working capital management on firm performance of manufacturing sector of Pakistan, we found that working capital management has substantial influence on the profitability of manufacturing sector of Pakistan and it play a considerable part in the value creation and shareholders wealth maximization. The negative association between average collection period and net operating profitability endorse that by collecting the receivables as early as possible, profitability will be enhanced, whereas the negative association between net operating profitability and inventory turnover in days implies that those firms are more profitable that hold low level of inventory and less amount of money is blocked in the form of inventory. Regarding creditors payment, it is established from the results, that less profitable firms wait longer to pay their bills. It implies that lengthening the payment period enhances profitability because the firm can spare a higher level of working capital that can be used to increase profitability if the firm takes a longer period of time to make the payments to their suppliers. Our study discloses that a shorter cash conversion cycle will enhance the profitability of manufacturing firms of Pakistan.

This study provides a selective overview of the available literature on working capital management and profitability of firms. We further provide new empirical evidence on the issue utilizing various standard models and a new dataset of indicators of working capital management, which covers industrial and manufacturing sector of Pakistan. In our study we have also included firms from other industrial sector as well due to their specific nature and heavily dependency on manufacturing sectors (firms that do not produce/manufacture goods but firms in these sectors deals in finished goods). Such as Energy and Oil & gas as these firms included in the manufacturing sector by Karachi Stock Exchange (New name Pakistan stock Exchange).

Literature Review

A considerable amount of literature has been published on working capital management and its effect on profitability. The following are more interesting to our studies.

Deloof (2003) examines a sample of large Belgian companies during the period 1992 - 1996 and their results confirmed that these companies could enhance their profitability by minimizing the number of days of accounts receivable and by minimizing the inventory levels. Similarly, the study of Garcia-Teruel and Martinez-Solano (2007) also suggest that managers can create value by reducing the average number of days of accounts receivable and inventory. Their results suggest that an increase in the cash conversion cycle will lead to decrease the profitability of the company. Lazaridis and Tryfonidis (2006) studied the relationship of working capital management and corporate profitability of 131 firms listed at Athens Stock Exchange (ASE) for the period of 2001 – 2004. They found statistically significant relationship between profitability (Gross operating profit) and the cash conversion cycle. Their study suggests that managers can create profit for their firms by managing efficiently and effectively each component of working capital (accounts receivable, accounts payable and inventory) individually to an optimum level. The study of Shin and Soenen (1998) analyze the relationship between different accounting measures of profitability and the cash conversion. There results conclude that companies that manage their working capital more efficiently (i.e. a lower cash conversion cycle) have higher operating cash flow and are more profitable.

Raheman and Nasr (2007) investigated the relationship between working capital and profitability using 94 Pakistani firms. Their study established a strong negative relationship between variables of the study and net operating profitability. The inverse relationship between net operating profitability and cash conversion cycle, average payment period, average collection period and inventory turnover in days endorsed that managers can create value for their shareholders by minimizing inventories and number of days account receivables. The study also found negative relationship between net operating profitability and accounts payable, and suggest that less profitable firm wait longer to pay their bills. A study was conducted by Padachi (2006) for a sample of 58 small Mauritian manufacturing firms for the period 1998 – 2003 using panel data analysis. Inventories days, accounts receivables, accounts payables and cash conversion cycle were used as key variables in the study. Outcome of the regression results indicates that high investment in accounts receivables and inventories lead a firm to low profitability. He clarified that well-planned and well executed working capital management contribute positively to the creation of firm's value. Garcia, Martins and Brandao (2011) used GLS and OLS regression for the analysis of a large sample of 2974 non- financial companies listed on 11 European Stock Exchanges for a period of 1998 – 2009. Inverse relationship between variables of the study and profitability suggest that profitability of firms can be improved by shortening the time length during which working capital is tied up with in the company. Further their study also found negative relationship between profitability and current ratio (Liquidity). Kumar (2011) analyzed a sample of 20 firms in Indian Automobile industry for the period 1996 – 2009 and studied the effect of Cash Conversion Cycle on profitability. He used multiple regression models to test the effects of cash conversion cycle and other control variables (GDP growth, size, leverage)

of the study on corporate profitability. He found significant negative relationship between Accounts Receivable Period (ARP), Inventory Conversion Period (ICP) and Cash Cycle (CCC). Unlike the study of Deloof , Rehman & Nasr his study found positive relationship between profitability and accounts payable period.

Methodology and variables of the study

The aim of this paper is to explore the relationship between profitability and working capital management and to investigate the impact of working capital management on profitability of firms listed on Karachi Stock Exchange (Pakistan Stock Exchange). This study emphasis exclusively on manufacturing firms covering all industries in Pakistan. Thus the empirical study is based on a sample of 120 manufacturing companies of Pakistan. The data has been extracted form financial statement and annual reports of sample firms of Karachi Stock Exchange, Dspace Repository and individual companies web site for a period of 7 years covering 2008 – 2014. Thus a set of balanced panel data of 840 firms year observation for a sample of 120 firms were created.

Return on total assets (ROTA) is used to measure the profitability of firms, and known as profit before interest and tax divided by total assets (ROTA=PBIT/Total Assets). The components of working capital are Cash, Accounts Receivables, Inventory and Accounts payable. Number of Days accounts receivables represents the average number of days that the company uses to collect payments from its customer. Accounts receivables are credit sales made to customers and can be defined as Number of Days Accounts Receivables = Accounts Receivables/ (Net Sales/365). Average number of day's accounts payable represents the average number of days the company takes to pay its suppliers. Accounts payable are short term liabilities or amount payable for purchases made on credit. The formula for accounts payable is Number of Days Accounts payable = Accounts payable/ (Cost of Goods sold/365). The average number of day's inventories represents the period that inventories are held by the companies before they are sold. Inventories are Raw materials, work in process and finished goods that firms produce to sell. The formula for inventories is Number of Days inventory = inventories/ (Cost of Goods sold/365). Cash conversion cycle (CCC) is the period between procuring of raw materials and paying for the raw materials and getting back the cash from the sales of finished goods. The CCC is measured as Cash Conversion Cycle = Number of days accounts receivables + Number of days inventories – Number of days accounts payables. Current ratio (CR) is calculated by dividing current assets with current liabilities (CR = current assets/current liabilities). Gearing is a portion of a company's financial leverage and demonstrates the level to which its operations are financed by shareholders versus lenders. Gearing is Total debt/Total Assets. Current assets to Total Assets Ratio (CATA) show the level of total funds invested for the purpose of working capital and enlighten the importance of current assets of a firm. It is useful to see that how much of that portion of total assets is engaged by the current assets, as current assets are fundamentally involved in making working capital and also take a vigorous share in increasing liquidity. Asset turnover ratio is an indicator of the efficiency with which a company is arranging its assets. Asset turnover ratio is calculated by dividing sales to total assets (Asset Turnover = Sales/Total Assets). Current liabilities to total asset ratio (CLTA) is calculated by dividing current liabilities with

total assets. (CLTA = Current Liabilities/Total Assets). Sales growth is calculated from current year's sale minus previous year's sales and divided by previous year's sales (Deloof, 2003). (Current year's sale - previous year's sales/previous year's sales). Stock to current assets is obtained by dividing stock on current assets (Stock/Current Assets) and Total debt to current assets is derived by dividing total debt with current assets (Total Debt/Current Assets).

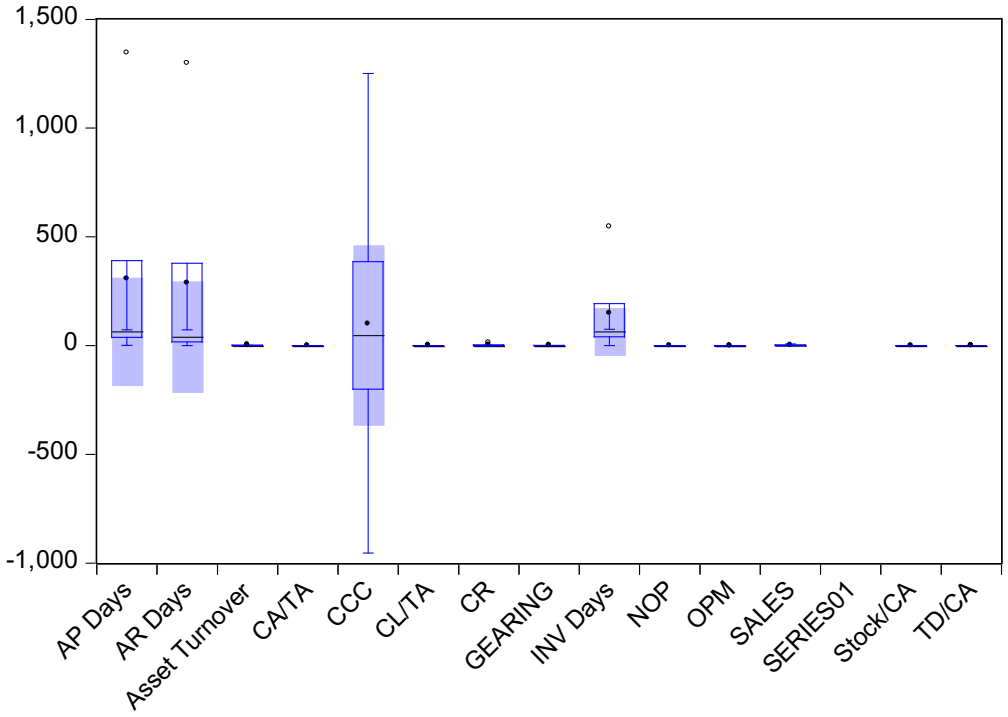
Descriptive statistics: Table 1 shows the descriptive statistics of the manufacturing firms listed on Karachi Stock Exchange during 2008 – 2014. The mean and median value of ROA is 7%, similar to the results of previous studies conducted by Garcia-Teruel and Martinez-Solano (2007), where the mean was 8% and the median was 6.7% using ROA as dependent variable. Maximum and minimum values of ROA are 63% and -49% respectively with the standard deviation of 11%. The average number of day's accounts receivables of the sample is 43.46 days and has a median of 23.09 days. The standard deviation of the sample is 73.10 with minimum and maximum of 0 days and 1298.55 days. These results are different than the results of Gill et al. (2010), Deloof (2003), Rahman, Nasr, Falope and Ajilore (2009), who found on average (AR) collection period as 53.48 days, 54.64 days, 54.79 and 61.21 days respectively. Pakistani firms on average have 75.56 days inventory turnover in days with a standard deviation of 53.92. The median value of Inventory turnover in days is 67.50. The maximum and minimum days of inventory are 547.82 and 0.88. These findings are similar to the studies of Gill et al. (2010), Raheman and Nasr (2007), Garcia-Teruel and Martinez-Solano (2007) and Dong and Su (2010), they found on average above or close to 80 days of inventory. The average numbers of Days accounts payable are 68.23 with a median of 51.51. Maximum and minimum day's accounts payables of Pakistani firms are 1346.82 and 1.86 with standard deviation of 72.83. These results are matching with the findings of Rahman and Nasr (2007) who found an average of 59.58 days of accounts payable days. The maximum and minimum days of Cash Conversion Cycle (CCC) are 1251.88 and -952.86 having standard deviation of 98.30. The average CCC of manufacturing firms in Pakistan is 50.78 days and median is 51.35 days. The findings of Gill et al. (2010) 89.94 days of CCC, Raheman and Nasr (2007) 72.96 Days of CCC and Lazaridis and Tryfonidis 188.99 Days of CCC are higher than our results. The mean and median values of Current Ratio, Stock to current assets, Trade Debtors to current assets, Current assets to total Assets (CATA) and Current Liabilities to total assets (CLTA) are 1.49 & 1.15, 0.42 & 0.44, 0.23 & 0.17, 0.51 & 0.48 and 0.44 & 0.42. Asset turnover, Gearing and sales have a mean value of 1.40, 0.60 and 2.86 with the standard deviation of 0.80, 0.31, and 1.36. Their maximum and minimum values are 6.02 & 0.02, 3.58 & 0.03 and 7.92 & 0.26.

Table1. Descriptive statistics

Variables	Observations	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
ROA	840	0.07	0.07	0.63	-0.49	0.11	0.49	6.61
OPM	840	0.05	0.05	0.68	-1.25	0.13	-1.96	22.77
CR	840	1.49	1.15	14.52	0.11	1.23	4.31	31.38
Asset Turnover	840	1.40	1.25	6.02	0.02	0.80	1.53	6.92
Gearing	840	0.60	0.58	3.58	0.03	0.31	3.77	30.46

Variables	Observations	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
CATA	840	0.51	0.48	0.97	0.04	0.20	0.33	2.52
Stock/CA	840	0.42	0.44	0.85	0.00	0.21	-0.15	2.08
TD/CA	840	0.23	0.17	1.29	0.00	0.20	1.33	5.00
CLTA	840	0.44	0.42	2.75	0.02	0.24	3.03	24.78
AR DAYS	840	43.46	23.09	1298.55	0.00	73.10	8.02	116.57
INV DAYS	840	75.56	67.50	547.82	0.88	53.92	2.33	15.49
AP DAYS	840	68.23	51.51	1346.82	1.86	72.83	7.86	122.55
CCC	840	50.78	51.35	1251.88	-952.86	98.30	1.62	46.15
SALES	840	2.86	2.66	7.92	0.26	1.36	0.98	4.17

Graphical representation of Descriptive Statistics



Analysis and Understanding of current assets and Liquidity: Table 2 describes the short-term liquidity and solvency of firm. The current ratio of the selected sample varied between 1.36:1 and 1.58:1 during the period of study. The current ratios confirm that manufacturing firms of Pakistan has no liquidity issue. The quick ratio of manufacturing firms of Pakistan ranges between 0.82:1 and 1:1. The standard quick ratio is normally 1:1. Quick asset ratios shows that firms needs to sell its inventory to pay their bills, as all the findings except 2010 are less than 1. Pakistani firms mainly rely on generating funds from their operating activities rather than debt financing or outside investment. Less than 46% current assets are financed by short term funds which describe that manufacturing firms are doing well as a whole. The proportion of liquid assets to total assets is around 50% throughout the selected period. Current assets are very important to any business because current assets can be easily converted into cash and are used to finance the day to day activities and to pay the on-going

expenses of a company. More than 40 % of inventory is financed by the current assets in Pakistani firms.

Table 2. Components of Current Assets & Liquidity

Year	Current Ratio	Quick Asset Ratio	Stocks to Current Assets (SK/CA)	Trade Debtors to Current Assets (TD/CA)	Current Asset/Total Asset	CLTA
2008	1.36	0.84	0.42	0.21	0.51	0.46
2009	1.54	0.97	0.41	0.24	0.47	0.41
2010	1.58	1.00	0.41	0.24	0.49	0.42
2011	1.42	0.82	0.44	0.22	0.53	0.45
2012	1.44	0.82	0.44	0.23	0.52	0.44
2013	1.57	0.94	0.43	0.22	0.52	0.42
2014	1.54	0.94	0.41	0.22	0.52	0.43

Empirical Analysis

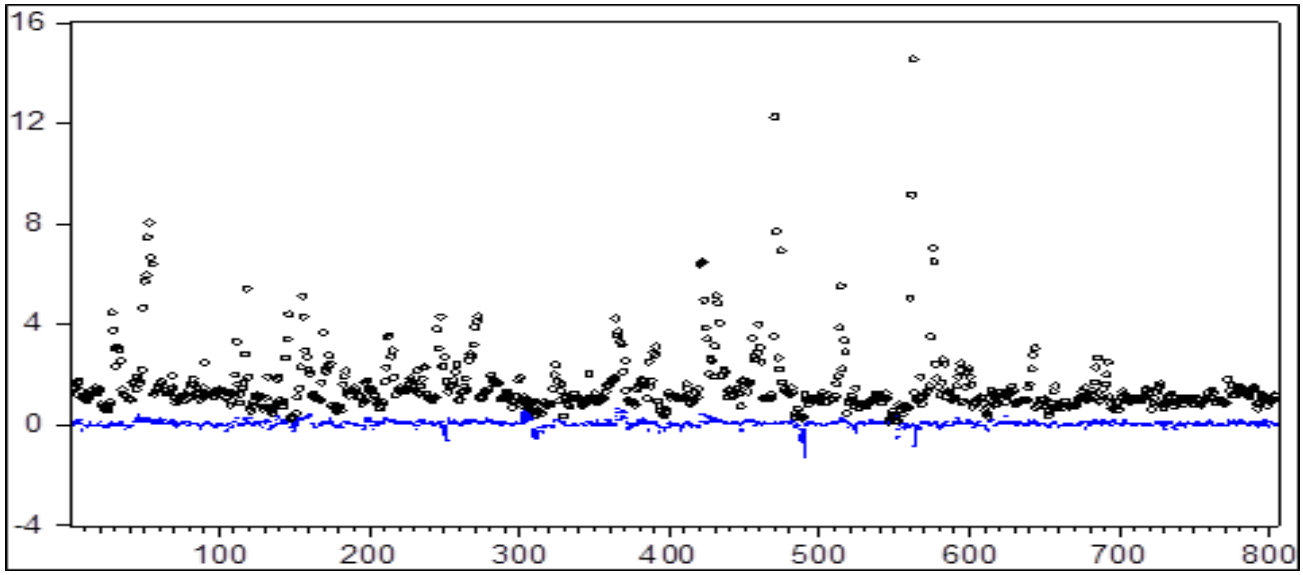
Impact of Working capital Management on Profitability

Correlation analysis: Table 3 describes the Pearson correlation coefficients for the variables used in this study to judge the influence of working capital management on profitability. Highly significant positive correlation was found between ROA and OPM (0.730), CR (0.313), Asset turnover (0.359), CATA (0.224), and Sales (0.203). Highly significant negative correlation was found between ROA and gearing (-0.039), Trade debtors to current assets (-0.268) and current liabilities to total assets (-0.268). We also found highly significant negative correlation between ROA and the components of working capital management. The correlation coefficient between ROA and Accounts Receivables days is (-0.189), ROA and Inv Days is (-0.127), ROA and AP (-0.072) and ROA and CCC is (-0.157). Pearson correlation analysis shows that the number of days accounts payables (-0.072) significantly negatively related to the dependent variable return on assets (ROA). This negative correlation state that less profitable firms wait longer to pay their bills and that firms can increase its profitability by paying early to its suppliers. This relation is in confirmation with the outcome of the study conducted by Deloof (2003), Rahman and Nasr (2007), Falope and Ajilore (2009) and Karaduman et al. (2011).

Table: 3 Correlation Analysis
Correlation analysis
Included observations: 840

Probability	OPM	CR	A_TURN	Gearing	CA/TA	Stock/TA	TD/CA	CL/TA	AR Days	INV Days	AP Days	CCC	Sales
ROA	0.73	0.313**	0.359**	-0.321**	0.224**	-0.039*	-0.135**	-0.268**	-0.189**	-0.127**	-0.072*	-0.157**	0.203**
OPM		0.360**	0.067	-0.412*	0.06	-0.110*	-0.161*	-0.427	-0.351*	-0.112*	-0.03	-0.303*	0.04
CR			-0.016	-0.495**	0.184**	-0.177**	-0.061*	-0.476**	-0.039*	0.083*	-0.069	0.067	0.204**
A_TURN				0.061	0.516**	0.193**	0.001**	0.220**	-0.243*	-0.295*	-0.183*	-0.207*	0.648*
Gearing					-0.039	0.013	0.153**	0.811**	0.171**	-0.111*	0.155**	-0.049	-0.212*
CA/TA						-0.03	0.317**	0.314**	0.213**	0.08	0.223**	0.037	0.166**
Stock/CA							-0.395**	0.011	-0.349**	0.516**	-0.279**	0.231**	0.223**
TD/CA								0.314*	0.686	-0.145	0.233	0.258*	-0.268
CL/TA									0.307**	-0.078*	0.269**	-0.01	0.028
AR Days										0.079	0.352*	0.526*	-0.42
INV Days											0.097	0.535*	-0.447
AP Days												-0.43*	-0.33*
CCC													-0.31
t statistic in parentheses. *Significant at 5 percent. **Significant at 1 percent.													

Graphical representation of Correlation Matrix



Regression Analysis: Following models were used to examine the impact of working capital management on profitability. We used fixed effect model (1 to 4) and Pooled OLS (5 to 8), a regression based framework estimation in table 4 to estimate the corporate profitability of Pakistani firms.

$$ROA = \beta + \beta \text{ sales} + \beta \text{ gear} + \beta \text{ clta} + \beta \text{ cata} + \beta \text{ Asset Turnover} + \beta \text{ ACP} + \varepsilon it$$

(Model 1)

$$ROA = \beta + \beta \text{ sales} + \beta \text{ gear} + \beta \text{ clta} + \beta \text{ cata} + \beta \text{ Asset Turnover} + \beta \text{ Inv} + \varepsilon it$$

(Model 2)

$$ROA = \beta + \beta \text{ sales} + \beta \text{ gear} + \beta \text{ clta} + \beta \text{ cata} + \beta \text{ Asset Turnover} + \beta \text{ APP} + \varepsilon it$$

(Model 3)

$$ROA = \beta + \beta \text{ sales} + \beta \text{ gear} + \beta \text{ clta} + \beta \text{ cata} + \beta \text{ Asset Turnover} + \beta \text{ CCC} + \varepsilon it$$

(Model 4)

Model 1 shows that the coefficient of AR Days is negative and highly significant. It concludes that profitability of Pakistani firms decrease by -0.00002 with an increase of 1 day in the account receivable days. The coefficient of sales, CATA and Asset Turnover are also significant and positive. This positive significant relation of the regression model illustrate that ROA will increase with the increase in Sales, Asset Turn over and CATA. The coefficient of other variable of the study in the model, Gearing and CLTA are highly significant and negative. ROA will decrease with the increase in Gearing (-0.02693) and CLTA (-0.15211). Model 2 of the regression analysis confirm a significant negative relationship between ROA and Inventory days. The negative relation between ROA and Inventory days (-0.00015 and p value = 0.003) confirm that holding inventory for a longer period of time will adversely affect the profitability. Regression 3 shows that the coefficient of AP (-0.00012) is negative with a p-value of 0.0159 confirm the negative relation between ROA and AP. The coefficient of CCC is also negative -0.00011 and highly significant. Thus Profitability will drop with the increase in Cash Conversion Cycle.

We used pooled OLS instead of fixed effect model in regression 5 to 8. The results of pooled OLS regression are consistent with the results of fixed effect regression. The coefficient of ACP, Inv Days and AP are negative and significant except for the coefficient of CCC. It was highly significant (p-value =0.0000) and negative in regression 4. The adjusted R-squared of Pooled OLS regression (0.27 to 0.28) are lower than the adjusted 'within' R-squared of fixed effect model (0.21 to 0.23). Thus the regression models describe a greater amount of the deviations in profitability within firms than between firms. These results of the regression model in table 4 suggest that by decreasing and dropping the number of day's inventories and number of day's accounts receivables, managers can increase the corporate profitability of firms. The negative relation between ROA and AP Days suggest that less profitable firm wait longer to pay their bills.

Table 4. *Regression Analysis*
Regressions analysis of Profitability on Variables, 120 Manufacturing Companies, 2008 - 2014:
Dependent Variable: Return on Assets (ROA)

Regression Model:	Fixed Effect				Pooled OLS			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
SALES	0.007491	0.004752	0.007	0.004315	0.014665	0.015329	0.015362	0.014811
p Value	0.022	0.447	0.2513	0.4847	0.0218	0.0179	0.0157	0.0218
GEARING	-0.02693	-0.02432	-0.02514	-0.02607	-0.02072	-0.01689	-0.02461	-0.02073
p Value	0.0000	0.2732	0.2568	0.2384	0.6975	0.7784	0.6453	0.7079
CLTA	-0.15211	-0.15988	-0.16605	-0.15525	-0.22673	-0.21975	-0.21829	-0.223033
p Value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001	0.0001
CATA	0.120497	0.117799	0.09796	0.111668	0.251009	0.259846	0.261904	0.253274
p Value	0.0017	0.0019	0.0115	0.0032	0.0000	0.0000	0.0000	0.0000
ASSTTURN	0.037186	0.038618	0.044198	0.039754	0.001267	-0.00091	-0.00160	-0.000252
p Value	0.0019	0.001	0.0002	0.0007	0.9309	0.9514	0.9208	0.9862
ACP	-0.00002				-0.00001			
p Value	0.0000				0.0000			
Inv Days		-0.00015				-0.0001		
p Value		0.033				0.0219		
APP			-0.00012				-0.00004	
p Value			0.0159				0.0664	
CCC				-0.00011				0.0000049
p Value				0.0000				0.9242
R-squared	0.275611	0.279499	0.280662	0.283939	0.216055	0.23044	0.215044	0.216724
Adjusted R-squared	0.270164	0.274082	0.275253	0.278555	0.211149	0.225624	0.210132	0.211823
S.E. of regression	0.096266	0.096007	0.09593	0.095711	0.100083	0.09916	0.100147	0.10004
Sum squared resid	7.395213	7.355515	7.343647	7.310193	8.003211	7.856362	8.013536	7.996379
Log likelihood	745.4833	747.6497	748.2997	750.1374	731.5332	756.8427	732.7913	733.2765
F-statistic	50.60299	51.5939	51.89222	52.73834	53.65102	51.52801	50.01235	52.90365

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Prob(F-statistic)	0	0	0	0	0.000001	0	0.000001	0.000001
Mean dependent var	0.073982	0.073982	0.073982	0.073982	0.073982	0.073982	0.073982	0.073982
S.D. dependent var	0.112684	0.112684	0.112684	0.112684	0.112684	0.112684	0.112684	0.112684
Akaike info criterion	-1.83474	-1.84012	-1.84174	-1.8463	-1.84231	-1.85362	-1.84367	-1.84963
Schwarz criterion	-1.79395	-1.79933	-1.80095	-1.80551	-1.79423	-1.79953	-1.80063	-1.80563
Hannan-Quinn criter.	-1.81907	-1.82445	-1.82607	-1.83064	-1.82817	-1.82356	-1.82321	-1.83630
Durbin-Watson stat	0.985701	0.993638	0.993486	1.000143	0.939699	0.95088	0.941432	0.941176

Conclusion

Our analysis confirms that Working capital management has significant impact on the firm's profitability, as huge sum of cash are invested in working capital in Pakistani firms. For the long term survival of a business, efficient management of working capital is very important. We found in our study that profitability is negatively related to the component of working capital management. The results of our studies show that there is highly significant negative relationship between profitability and accounts receivable days which states that with the increase in AR days profitability will decrease and with the decrease in AR Days profitability will increase. The regression results also confirm significant negative relationship between inventories and profitability. Firms that hold inventory for a longer period of time will be less profitable than the firms that hold inventory for a lesser period of time. Negative relation between AP Days and profitability confirm that less profitable firm wait longer to pay their bills. Gill et al, (2010), Uyar (2009) and Raheman and Nasir (2007) found negative relation between profitability and CCC in their research. We found highly significant negative relationship between profitability and CCC, it illustrate that profitability will increase with the decrease of CCC and vice versa.

From the findings of our study it is suggested that the manufacturing sector of Pakistan is required to pay full consideration to all the variables of the working capital management. The findings of our study suggest that the managers can create value for their shareholder by minimizing their cash conversion cycle and reducing inventory days to the least minimum through effective management of working capital. One of the main findings of our study is that paying full attention to the cash conversion cycle has enormous effect on working capital, and the actions to minimize the cash conversion cycle are easy to implement. Agreeing shorter term payments, invoicing and investigating credit rating on a regular basis gives good approach to the whole working capital process. Minimizing the inventory level frees the capital for other use, centralizing and unifying procurement process gives the opportunity to follow and agree similar terms for several sales. It is further added that the firm's managers can enhance the profitability of their firms by reducing the collection period and by adopting effective credit policy. Firms should not leave making the request for invoicing to the end of the month. Instead of invoicing once a month, firms should prepare invoice request in each and every phase as soon as they are finished, to ensure smooth and steady transformation of money. It is concluded that if a firm receive its receivable faster, it reduces the needs for financing. Releasing tied-up capital as early as possible allows an opportunity to invest in new investments or start new projects. Efficient credit management and collecting is very vital for

repatriating receivables faster, getting receivables unties capital for operative use. Credit control plays an important role in checking customers' credit ratings in ensuring or decreasing the risk for losing the capital.

Our findings endorsed the study of Deloof (2003), Padachi (2006), Rahman & Nasr, Eljelly (2004) and Shin and Soenan who found significant negative relation between profitability and variables of their study. Findings of our research suggest that profitability of firms will increase if they properly manage and handle their accounts receivable, inventories, Accounts payable and cash conversion cycle.

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