

Relationship of Cash Conversion Cycle with Firm Size, Working Capital Approaches and Firm's Profitability: A Case of Pakistani Industries

Niaz Ahmed Bhutto^{*}, Ghulam Abbas^{**}, Mujeeb-ur-Rehman^{***} and Syed Mir M. Shah^{****}

Abstract

This study is aimed to analyze the comparative performance management of different industrial groups at single time scale from multiple perspectives. The study investigates the relationship between the length of CCC, firm size, firm profitability and aggressive/conservative Working Capital policies of 12 industrial groups. Descriptive analysis, Pearson correlation and Analysis of Variance (ANOVA) with post-hoc test (Least Significant Differences) have been used for empirical investigation. The data is collected from the financial statements of the 157 public limited companies listed in the Karachi Stock Exchange (KSE) for the year 2009. It is found that significant differences lie among the mean values of CCC across the Industries and more specifically, Oil and Gas industry is significantly different from all the other industries in term of its length of CCC. Findings of the study show that there is a significant and positive relationship between firms' aggressive investing policies and conservative financing policies. It is concluded that length of CCC has negative relationship with sales revenue, return on equity (ROE) and financing policies of the firms and has positive relationship with total assets, return on assets

* Associate Professor Sukkur Institute of Business Administration, Sukkur Email: niaz@iba-suk.edu.pk/
[niazhutto@gmail.com](mailto:niazbhutto@gmail.com)

** Research Associate & Student of MS leading to PhD in the area of Finance at Sukkur Institute of Business Administration, Sukkur

*** Student of MS leading to PhD in the area of Finance at Sukkur Institute of Business Administration, Sukkur

**** Assistant Professor Sukkur Institute of Business Administration, Sukkur

(ROA) and investing policies of firms. The practical implications of this study are for the management of the firms to consider the importance of the length of CCC in formulating their policies because the length of CCC is closely related to aggressive/conservative Working Capital approaches of firms. This is the first study of its nature conducted in Pakistan so far which has taken into account all these variables simultaneously and tried to investigate their relationship with each other.

Keywords: CCC, Working Capital approaches, Firm size and profitability, Pakistan

1. INTRODUCTION

The working capital management was traditionally a less focused topic in financial management literature. The focus of research is particularly on examining investments, capital structure, dividends or company valuation decisions, risk and return, among other topics. However, current assets and liabilities are important components of total assets and play a crucial role in success of a firm. Working Capital Management, also referred as liquidity management demands a careful attention since it plays a three dimensional role in firms profitability, risk, and its value (Smith, 1980). In a typical manufacturing company current assets accounts for over half of its total assets, and accounts for even more in a distribution company. An excessive level of current assets leads to idle funds, non-profitable for business, poor ROI, and Credit worthiness suffers on one hand and due to low rate of return on investments, the market value of shares may fall on other hand. However, firms having too few current assets may have to find external financing to pay of its short term debts, and may find difficulties in maintaining smooth operations.

There are two basic ways to assess the working capital management of firms, one is by following balance sheet concept and studying current assets and current liabilities; the other is to approach the concept of working capital management from point of view of Cash Conversion Cycle (CCC). The CCC measures the number of days between actual cash expenditures on purchase of raw materials and actual cash receipts from the sale of products or services (Eljelly, 2004). The traditional balance sheet measures of liquidity as Current Ratio and quick ratio are useful to analyze liquidity but CCC is a dynamic measure of ongoing liquidity management that uses both

balance sheet as well as income statement data combined with time dimension (Jose et al., 1996). The length of CCC differs from one firm to another and from one industry to another. To measure the performance of CCC and to assess improvement opportunities firms not only analyze its own CCC but also consider the industry benchmarks (Hutchison et al., 2007).

A firm may use aggressive working capital financing policy with a high level of current liabilities as percentage of total liabilities and owner's equity; moreover, an aggressive working capital management policy may also be used by employing a low level of current assets as a percentage of total assets. Current assets are considered an important and crucial component of total assets of a firm. Investment in fixed assets is reduced by leasing or renting plant, buildings, transportation equipment, and machinery but this type of policy cannot work to finance working capital.

The impact of length of CCC and working capital policies is highly important; however, less empirical research has been carried out to examine the relationship between Length of CCC and working capital policies and their relationship with profitability and size of firm in Pakistan. This study contributes to better understanding of the length of the CCC of Pakistani manufacturing and merchandising companies listed on Karachi Stock Exchange (KSE). Also, the study provides an empirical evaluation of the relationship among aggressive and conservative working capital investment and financing policies and their relation with CCC, firm size, and profitability. Following are the main objectives of the present study:

- To investigate whether there is significant difference across industries with respect to length of CCC, and working capital policies.
- To analyze the relationship of between working capital policies among firms and see whether an aggressive policy go together with aggressive financing policy.
- To analyze the relationship of working capital policies with length of CCC.
- To analyze the relationship of working capital policies and length of CCC with firms profitability and size.

2. LITERATURE REVIEW

Management of Working capital is crucial for all businesses, no matter what the size of the firm is and the industry in which it operates. Because, it means managing the assets and liabilities in such a way so that firm has no difficulty in paying off its short term debts. So, if any firm fails to manage its working capital properly it needs additional funds to pay off its short term liabilities and those additional funds must have some cost associated with them. So, it is concluded from above discussion that liquidity management is as important as profitability for an ongoing concern.

In finance literature the researchers approaches Working Capital management from two distinct aspects: static or dynamic views (Moss and Stine, 1993; Lancaster *et al.*, 1999; and Farris and Hutchison, 2002). The static view of Liquidity analysis measures liquidity at a given point in time, on the contrary ongoing liquidity of firms operations is measured by dynamic view. As a dynamic measure of liquidity Cash Conversion cycle is used that measure cash outflow and cash inflow in days for a given period of time. Using static view researchers used traditional ratios calculated from balance sheet e.g. current and quick ratio and analyzed the working capital management and financing policies. In a study on retail firms by Moss and Stine (1993) showed that the firm size has a significant negative relationship with CCC i.e. larger the size of the firm shorter the CCC and vice versa. They also found a significant positive relation between length of the CCC and current and quick ratios. In another study conducted on non-financial firms of Istanbul Stock Exchange (ISE) by Uyar A. (2009) found a significant negative relationship between the length of CCC and firm size and its profitability.

A significant negative relationship between the profitability and length of CCC was found in empirical studies conducted to examine the liquidity profitability tradeoff (Jose *et al.* 1996; Eljelly, 2004; Sen and Oruc, 2009). Another study on 22 thousand public limited firms by Hutchison *et al.* (2007) showed a positive relation between shorter CCC and higher profitability. In study conducted by Khan, Hijazi, and Kamal (2006) on Pakistani listed companies found that firm's profitability is negatively related to days inventory outstanding, days payable outstanding and CCC. Shah and Sana (2006) found a significant negative relation between CCC and gross

profit margin in their study on the impact of working capital on profitability in Pakistani Oil & gas sector.

The other issue studied in this paper is the relative aggressiveness in the policies of working capital management. Weinraub and Visscher (1998) studies t10 different industry groups over a 10 year time period to examine the relative relationship between aggressive and conservative working capital practices. Results show that there is a significant difference among industries with respect to aggressiveness of working capital management policies. The interesting finding of the study is that there is a significant negative correlation among current asset investment and financing policies. Relatively aggressive current assets financing policy is balanced with a relatively conservative working capital financial policy. The conservative working capital policies are found to be associated with lower levels of risk and return and vice versa (Carpenter and Johnson 1983, Gardner et al. 1986, Weinraub and Visscher 1998, Afza and Nazir 2008).

In their study on seventeen industrial groups of Karachi Stock Exchange Afza and Nazir (2007) found that working capital investment and financing policies are significantly different across different industries and an aggressive investment policy is go together with aggressive financing policy. They also found a negative relation between degree of aggressiveness of investment and financing policies with firm's profitability.

In the light of the above discussion, the present study expects negative relationship between length of CCC and profitability and a positive relationship between the degree of aggressiveness and the profitability of the firms. The main hypotheses to be tested in this study are as follows:

H₁ = There are no differences among the length of cash conversion cycle of firms across different industries

H₂ = There are no differences among the working capital investment policies of firms across different industries

H₃ = There are no differences among the working capital financing policies of firms across different industries

H₄ = An aggressive investment working capital policy is not accompanied by a aggressive financing policy

H₅ = There is no any relationship between CCC and firm profitability

H₆ = There is no any relationship between CCC and firm size.

3. DATA AND METHODOLOGY

The study based on the secondary data collected from the financial statements of 157 non-financial companies comprising on 12 industrial groups listed on the Karachi Stock Exchange, Pakistan for the year 2009. The firms with negative equity and profitability were excluded from the study. The study investigates the relationship between the length of CCC, firm size, firm profitability and aggressive/conservative Working Capital policies of 12 industrial groups. The hypotheses are formulated to test the relationship of CCC with working capital policies, firm size and profitability. Descriptive analysis, Pearson correlation and Analysis of Variance (ANOVA) with post-hoc test (Least Significant Differences) have been used for empirical investigation. Among these variables, sale and total assets are used as a measure of firm size, account receivable days, inventory days, and account payable days are the measures of firm's cash conversion cycle and return on equity and return on asset are used as a measure of firm's profitability. On the other hand current asset ratio shows the liquidity position of the firms. The working capital policies of the firm are classified as working capital investing policy and working capital financing policy.

Working capital investing policy:

The firm's working capital investing policy may be aggressive or conservative. The working capital investing policy of the firm is the ratio of the total current asset to its total assets. The degree of aggressiveness depends on the strength of the ratio. If this ratio is lower, it means firm

has adopted aggressive investment policy and utilizes less proportion of liquid assets or keeps low amount of cash in hand and if the ratio of current asset to total asset is higher, it will indicate the conservative investment policy of the firm.

$$\text{INV} = \frac{\text{Total Current Assets}}{\text{Total Assets}}$$

Where INV means working capital investment policy of the firm

Working capital financing policy:

On the other hand the working capital financing policy of the firm is the ratio of firm's current liabilities to its total assets. If the ratio of total current liabilities to total assets high, it means firm is following aggressive financing policy and vice versa. In aggressive financing policy, firm uses more portions of current liabilities and fewer portions of long term debts.

$$\text{FIN} = \frac{\text{Total Current Liabilities}}{\text{Total Assets}}$$

Where FIN means working capital financing policy of the firm

The working capital management policy of the firms has been analyzed on the single time scale for the year 2009. Correlation matrix has also been developed to see the strength of relationship among the working capital management policies, ROA and ROE (measures of profitability), firms' size and CCC of the firms. The significance level of Pearson's correlation coefficients is analyzed at 0.05 and 0.01.

5. EMPIRICAL ANALYSIS

a) Descriptive Analysis

Table-1 shows the descriptive analysis of different industries of Pakistan taken in this study. The results in the descriptive analysis include mean values of Total Assets, Sales Revenue, Account Receivable Days (ARD), Inventory Days (IND), Account Payable Days (APD), Cash

Conversion Cycle (CCC), Investing Policy (INV), Financing Policy (FIN), Return on Assets (ROA), Return on Equity (ROE) and Current Asset Ratios (CAR) of 12 industries of Pakistan. The mean values of assets and sales (in PKR) of 12 industries are 13,693,364 and 16,866,730 respectively. The mean value of CCC is 65.525 days for all the industries and from these mean values inventory turnover is greater than the mean values of sales outstanding and account payable days. By analyzing the mean values of CCC in all the industries individually, it is found that Oil & Gas have negative CCC which means that the industry is very much efficient by collecting its receivables from customers before paying to suppliers but this policy of strict collection and relax payments is not always sustainable. The CCC of Electricity is almost 29 and is the second shortest CCC among the list of twelve industries considered in this study. These shortest mean values of Oil & Gas and electricity are followed by cement, Industrial Engineering, automobile, Chemical, Food, Cotton Yarn, Spinning, Textile, household goods and personal goods. The CCC mean value of Personal Goods is 145.821 which is the highest among all the industries.

The greater mean value of CCC shows that companies producing household goods remained fail to shorten their CCC. This highest CCC shows that these companies store their inventory for longer time period with an average of 161.044 days and take more time in the collection of payments from their customers with an average of 37.807 days. But in this case the average collection days of personal goods industry are higher than their average payment days to suppliers. The resultant of highest CCC of this industry is only due to the high inventory days. This analysis indicates that personal goods industry has difficult time in Pakistan and need to revise its business policies.

The mean values of the firms' investment policies and financing policies indicate that on average firms are following aggressive investment policies and conservative financing policies. As the average ratio of total current assets to total assets of these 12 industrial groups is below 0.5 which shows that firms are following aggressive investment policies while the ratio of total current liabilities to total assets which is also below 0.5 shows that firms are following conservative financing policies. The mean values of ROA and ROE indicate that on average industries have very low 0.005 returns on assets and negative growth rate. The average ROE of

12 industrial groups is -0.044 which means firms are facing serious growth problems and have very low returns on investment.

b) ANOVA Results

The results of analysis of variance will help to test the hypotheses which are used to explain the relationship CCC with working capital management policies, firm size and profitability.

Hypothesis 1:

There are no differences among the length of cash conversion cycle of firms across different industries

In order to test the first hypothesis and to investigate whether the industries significantly differ from each other in terms of size of CCC, one-way ANOVA analysis with test of Least Significant Differences (LSD) from Post-Hoc tests was conducted. On the basis of results of one-way ANOVA with resulting value of F-test 2.327 that is significant at 5% level as shown in the Table-2. The hypothesis is rejected and it is concluded that significant differences exist among industries in terms of their Length of CCC. To find out where these differences exist the post hoc test of Least Significant differences is conducted that shows that oil and gas industry differs significantly from all other industries. Furthermore, the results also indicate that significant differences lie among the personal goods, cement, electricity and industrial engineering.

Hypothesis 2:

There are no differences among the working capital investment policies of firms across different industries

One-way ANOVA has also been applied to test our second hypothesis. To test the relative degree of degree of aggressive/conservative investment policies among industries one-way ANOVA with post hoc test of Least Significant Differences (LSD) is conducted and results are presented in table 3. The resulting value of F-test in table-3 is 4.624 Significant at 5% shows that significant differences exist among industries in terms of their working capital Investment policies. To find out where these differences exist, a post hoc Least Significant Difference (LSD) test has also been applied to compare the industry mean values of investment policies on a paired sample basis. Out of 66 pairs 26 differs from each other at 5% level of significance. So, on the

basis of above results the hypothesis is rejected and it is concluded that there are significant differences among industries in terms of their working capital investment policies.

Hypothesis 3:

There are no differences among the working capital financing policies of firms across different industries

Again to test the relative degree of aggressive/conservative financing policies among industries and our third hypothesis, one-way ANOVA with post hoc test of Least Significant Differences (LSD) is conducted and results are presented in table-4. The resulting value of F-test is 1.241 which is Significant at 5% shows that significant differences exist among industries in terms of their working capital financing policies. To find out where these differences exist a post hoc Least Significant Difference (LSD) test has also been applied to compare the industry mean values of financing policies on a paired sample basis. Out of 66 pairs 5 differs from each other at 5% level of significance. So, on the basis of above results this hypothesis is also rejected and it is concluded that again significant differences exist among industries in terms of their working capital financing policies.

c) Correlation Results

Correlation matrix is constructed to investigate the relationship between Cash Conversion Cycle, Profitability measures, Current Asset Ratio, total assets, sales revenue and industries investing and financing policies and to test our hypothesis from 4 to 6.

Hypothesis 4:

An aggressive investment working capital policy is not accompanied by a aggressive financing policy

The results of correlation matrix in table-5 show that there is a significant positive relationship between the ratio of TCA/TA (INV) and TCL/TA (FIN) at 1% level of significance, which means higher current asset to total assets ratio is accompanied with higher Current liabilities to total assets ratio. So, this hypothesis cannot be rejected because on the basis of correlation results lower the INV ratios (means aggressive working capital investment policy) lower the FIN ratio (Means conservative working capital financing policy). This result is contradicting with that of

Afza and Nazir (2008) in which they concluded that an aggressive WCM investment policy is accompanied with an aggressive WCM financing Policy.

Hypothesis 5:

There is no relationship between firms' CCC and profitability

It is obvious from table-6 the regression results that ROA is one the determinants of CCC at 1% significant level. ROA and CCC are positively related with each other. So on the basis of regression results we can conclude that profitability is one of the determinants of CCC, hence hypothesis 5 is rejected. This result is in accordance with the findings of Uyar A. (2009), who also found a significant but negative relationship between the length of CCC and Firms' profitability (ROA). So it is concluded that firms having more profitable operations tend to have shorter longer CCC to maintain their profit levels.

Hypothesis 6:

There is no relationship between CCC and firm size.

From the regression results presented in table-6, it is obvious that firm size as measured by natural log of sales has no significant relationship with CCC. This result is contradicting with that of Uyar A. (2009), who found a significant negative relationship between the length of CCC and Firms' Size.

Apart from this it is obvious from the regression results that both working capital investment and financing policies have significant relationship with CCC. Working capital investment policy has a significant positive relationship with CCC at 1% level, which means firms having an aggressive working capital investment policy tend to have shorter CCC and vice versa. Working capital investment policy has a significant negative relationship with CCC at 1% level of significant. Which means firms have an aggressive working capital investment policy also tend to have shorter CCC and vice versa.

6. CONCLUSION

The present study, conducted on listed companies of Karachi Stock Exchange (KSE), presents the average values of CCC, the TCA/TA ratio, and TCL/TA ratios. It is concluded that there exist a significant difference among the industries with respect CCC, INV policy and FIN policy.

The results of the study show that oil and gas industry have shortest CCC and it differs

significantly from all other industries. Other important finding with respect to CCC is that the Personal Goods sector has the longest CCC. The present study also investigates the relative relationship between the Working capital investment and financing policies for twelve different industrial sectors and found that industries differ significantly with respect to their working capital investment and financing policies. The positive and significant correlation between the investment and financing policies for industries indicate that industries which pursue aggressive investment working capital policies tend to follow conservative working capital financing policies. These results are consistent with that of findings of Weinraub and Visscher (1998) that showed a negative correlation between the asset management policies and financing policies.

Moreover, it is found that there exist a significant negative relationship between the firm size (measured by Total Assets) and the length of CCC. Hence it is concluded that large firms have shorter CCC and vice versa. This finding is consistent with that of Moss and Stine (1993) and Uyar A. (2009). Finally, another important finding of this study is that there is a significant negative relationship between the length of CCC and firm size. This means that firms with longer CCC have earned less profits and vice versa. This result is also consistent with that of Uyar A. (2009) who also found a negative relationship between the length of CCC and firm Size.

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Table 1. Descriptive Analysis of Twelve Industrial Groups in Terms of Their CCC, Size, WCM Policies and Profitability

Industry	Total assets	Sales	ARD	IND	APD	CCC	INV	FIN	ROA	ROE
Automobile	4125998	6319557	67.153	101.718	104.451	64.420	0.659	0.485	-0.012	0.022
Cement	19570577	9492166	13.311	117.146	93.512	36.945	0.200	0.293	0.034	0.056
Chemical	2059906	1935423	67.453	90.501	83.600	74.353	0.548	0.406	0.043	0.045
Textile	3409958	3003359	39.804	103.590	55.453	87.941	0.404	0.479	-0.044	-0.146
Personal Goods	6634314	6029609	37.807	161.044	53.029	145.821	0.522	0.413	0.045	0.070
Cotton Yarn	2113948	2241775	20.757	104.198	48.627	76.328	0.377	0.473	-0.183	-0.163
Spinning	3010584	2846079	26.634	104.595	47.902	83.327	0.442	0.516	-0.034	-1.445
Electricity	43628012	31184299	112.178	45.304	128.483	28.999	0.369	0.363	0.018	0.448
Food	1454134	1842495	28.467	90.095	43.752	74.810	0.543	0.317	0.049	0.193
Industrial Engineering	2497337	2648669	50.334	154.919	157.858	47.395	0.580	0.505	-0.016	-0.033
Oil & Gas	70906881	131013240	90.467	63.248	205.081	-51.367	0.639	0.562	0.014	0.029
Household Goods	4908721	3844094	67.392	113.813	63.870	117.335	0.547	0.389	0.147	0.400
Average	13693364	16866730	51.813	104.181	90.468	65.525	0.486	0.433	0.005	-0.044

Table: 2. Result of ANOVA (F-Test) and Test of Least Significant Differences (LSD) for Cash Conversion Cycle (CCC)

F-Statistics = 2.327

Industries	Automobile	cement	chemical	textile	personal goods	cotton yarn	spinning	electricity	food	industrial engineering	oil & gas
cement	0.564										
chemical	0.825	0.37									
textile	0.536	0.136	0.653								
personal goods	0.123	0.03*	0.132	0.156							
cotton yarn	0.791	0.345	0.959	0.701	0.143						
spinning	0.659	0.24	0.804	0.864	0.168	0.846					
electricity	0.469	0.863	0.294	0.102	0.023*	0.273	0.186				
food	0.823	0.384	0.991	0.687	0.147	0.97	0.823	0.308			
industrial engineering	0.715	0.81	0.505	0.214	0.045*	0.475	0.346	0.682	0.517		
oil & gas	0.016*	0.049*	0.003*	0*	0*	0.003*	0.001*	0.082	0.004*	0.024*	
household goods	0.34	0.129	0.393	0.506	0.619	0.415	0.483	0.103	0.412	0.178	0.002*

*. The mean difference is significant at the 0.05 level

Table: 3. Result of ANOVA (F-Test) and Test of Least Significant Differences (LSD) for Investment Policy of the Industries

F-Statistics = 4.620

Industries	Automobile	cement	chemical	textile	personal goods	cotton yarn	spinning	electricity	food	industrial engineering	oil & gas
cement	.45894*										
chemical	0.1111	-.34785*									
textile	.25507*	-.20387*	.14397*								
personal goods	0.13683	-.32211*	0.02573	-0.11824							
cotton yarn	.28256*	-.17638*	.17146*	0.02749	0.14573						
spinning	.21704*	-.24190*	0.10594	-0.03803	0.08021	-0.06552					
electricity	.29075*	-0.1682	.17965*	0.03568	0.15392	0.00819	0.07371				
food	0.11606	-.34288*	0.00496	-.13901*	-0.02077	-.16650*	-0.10098	-0.17468			
industrial engineering	0.07924	-.37971*	-0.03186	-.17583*	-0.05759	-.20332*	-0.13781	-.21151*	-0.03683		
oil & gas	0.02015	-.43880*	-0.09095	-.23492*	-0.11668	-.26241*	-.19690*	-.27060*	-0.09592	-0.05909	
household goods	0.11254	-.34640*	0.00144	-0.14253	-0.02429	-0.17002	-0.1045	-0.17821	-0.00352	0.0333	0.09239

*. The mean difference is significant at the 0.05 level.

Table: 4. Result of ANOVA (F-Test) and Test of Least Significant Differences (LSD) for Financing Policy of the Industries

F-Statistics = 1.241

Industries	Automobile	cement	chemical	textile	personal goods	cotton yarn	spinning	electricity	food	Indus. engineering	oil & gas
cement	0.19177										
chemical	0.07846	-0.1133									
textile	0.00598	-.18579*	-0.07248								
personal goods	0.07203	-0.1197	-0.00643	0.06605							
cotton yarn	0.01194	-0.1798	-0.06652	0.00596	-0.06009						
spinning	-0.03158	-.22335*	-0.11004	-0.03756	-0.10361	-0.04352					
electricity	0.12205	-0.0697	0.04359	0.11608	0.05002	0.11011	0.15363				
food	0.16774	-0.024	0.08928	0.16176	0.09571	0.1558	.19932*	0.04569			
Indus. engineering	-0.02006	-0.2118	-0.09852	-0.02603	-0.09209	-0.03199	0.01153	-0.14211	-0.1878		
oil & gas	-0.07737	-.26914*	-0.15583	-0.08334	-0.1494	-0.08931	-0.04579	-0.19942	-.24511*	-0.05731	
household goods	0.09606	-0.0957	0.0176	0.09008	0.02403	0.08412	0.12764	-0.026	-0.07168	0.11611	0.17342

*. The mean difference is significant at the 0.05 level.

Table 5. Correlation Matrix of CCC, Firm Size, WCM Policies and Profitability Measures

		CCC	Sales	Total Assets	ROE	ROA	CAR	INV	FIN
CCC	Pearson Correlation	1	-.106	-.173*	-.143	.141	.081	.088	-.103
	Sig. (2-tailed)		.187	.030	.074	.077	.311	.274	.198
	N	157	157	157	157	157	157	157	157
Sales	Pearson Correlation	-.106	1	.728**	.011	.036	-.009	.227**	.142
	Sig. (2-tailed)	.187		.000	.896	.656	.913	.004	.075
	N	157	157	157	157	157	157	157	157
Total Assets	Pearson Correlation	-.173*	.728**	1	.053	.121	.007	.086	.009
	Sig. (2-tailed)	.030	.000		.513	.131	.931	.282	.907
	N	157	157	157	157	157	157	157	157
ROE	Pearson Correlation	-.143	.011	.053	1	.010	.031	-.270**	-.266**
	Sig. (2-tailed)	.074	.896	.513		.899	.701	.001	.001
	N	157	157	157	157	157	157	157	157
ROA	Pearson Correlation	.141	.036	.121	.010	1	.368**	.097	-.518**
	Sig. (2-tailed)	.077	.656	.131	.899		.000	.228	.000
	N	157	157	157	157	157	157	157	157
CAR	Pearson Correlation	.081	-.009	.007	.031	.368**	1	.192*	-.448**
	Sig. (2-tailed)	.311	.913	.931	.701	.000		.016	.000
	N	157	157	157	157	157	157	157	157
INV	Pearson Correlation	.088	.227**	.086	-.270**	.097	.192*	1	.480**
	Sig. (2-tailed)	.274	.004	.282	.001	.228	.016		.000
	N	157	157	157	157	157	157	157	157
FIN	Pearson Correlation	-.103	.142	.009	-.266**	-.518**	-.448**	.480**	1
	Sig. (2-tailed)	.198	.075	.907	.001	.000	.000	.000	
	N	157	157	157	157	157	157	157	157

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Table: 6. Regression Analysis of CCC, Firm Size, WCM Policies and Profitability Measures

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-45.657	47.092		-.970	.334
	INV	.451	.113	.238	3.994	.000*
	FIN	-.690	.073	.567	9.509	.000*
	ROA	106.869	33.613	.192	3.179	.002*
	Size	1.985	3.131	.038	.634	.527

Adjusted R-square = .436, F-statistics = 32.333, Significance F = .0000

*Significant at 1% level