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Research Article

LIQUIDITY RISK, PERFORMANCE AND WORKING CAPITAL RELATIONSHIP OF CASH CONVERSION CYCLE: AN EMPRICIAL STUDY OF THE FIRMS IN PAKISTAN

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ABSTRACT

This study proposes to examine the management of the comparative performance of the various groups an industrial scale unique opportunity from multiple perspectives. Descriptive analysis, Pearson correlation and analysis of variance (ANOVA) with post-hoc tests (less important difference) were used empirical research. The information is collected for financial statements of 200 company publishes quoted on the Karachi stock (KSE) for year 2009-2013. We found statistically significant relationship between the cash conversion cycle and profitability, measured by EBIT. The results of the study show that there is an important relationship in its investment policy and therefore corporation's positive and corrosive policies of conservative financing. Long-run equilibrium relationships between the cash conversion cycle, a measure of ongoing liquidity management, and alternative measures of profitability are tested using both nonparametric and multiple regression analysis. It 'absolutely was discovered that the length of the CCC has negative relationship with sales revenue, return on equity (ROE) and financing policies of the companies. And the positive relationship with total assets, return on assets (ROA) and policies investment companies. The study explores the link between the length of CCC, firm size, firm profitability and / conservative policies in working capital aggressive five business groups. The policies of the working capital of the companies are classified as capital and investment policy of working capital of financing policy work. At the sensible implications of this study for the management of corporations think about the worth the length of CCC in formulating their policies due to the length of the CCC is closely associated with / conservative approaches businesses aggressive in Working capital. The Impact of this study is to examine the relationship between CCC working capital management practices and profitability of listed manufacturing firms in KSE. This study is first time is conducted in Pakistan to date thus for that has taken into all account of those variables simultaneously and tried to study their mutual relationships.

INTRODUCTION

The managing working capital was traditionally a subject less targeted within the literature of managing finances. The main objective of the analysis is especially thought about investments, capital structure, dividend or the choices of company valuation, risk and return between the various topics. It deals with current assets and current liabilities. Working capital management is important due to many reasons. Traditional measures of corporate liquidity, including the current ratio, quick ratio, net working capital, and the ratio of net working capital to current liabilities, are based on static balance sheet entries. Long run equilibrium relationships between the CCC and measures of profitability are examined to determine if aggressive liquidity management is associated with higher returns.

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Excessive levels of current assets leads to a minimal, are not profitable for businesses, poor ROI, and are suffering credit on an aspect and come from low rates of investment; the value of shares will fall on opposite side. But, companies must be forced too few current assets might have noticed external financing to pay its debts in the short term, and will notice may find it difficult to maintaining normal operations. Are two fundamental routes that of evaluating the working capital administration of organizations, the essential is as per the following idea of the monetary allowance and to audit this present resources and current liabilities? Administration of working capital is a critical part of corporate money related administration in light of the fact that it specifically influences the benefit of the organizations. Administration of working capital alludes to administration of current resources and of current liabilities. Scientists have drawn nearer working capital administration from numerous points of view.

As per Deloof, the way that working capital is overseen significantly affects gainfulness of firms. The length of CCC contrasts from organization to organization and firms to firms. To estimation the execution of CCC and for assessing opens doors for improvements of organizations to investigate their CCC, as well as looked into the benchmarks in the business (Hutchison *et al*., 2007). The Company can utilize forceful strategy of capital financing with abnormal amounts of current liabilities as extent (in percent) of aggregate liabilities the value of the proprietor. The term working capital administration is one of the imperative themes of the corporate fund, which alludes to the company's interests in transient resources money, attractive securities, Account receivables and inventories. An interest in settled resources is diminished by renting Equipment, structures, hardware and vehicles, then again, this kind of arrangement can't work inferable from account capital. Moreover, this study provides associate degree empirical analysis of the link between investment and financing policies of working capital and aggressive conservative and their relation with CCC, firm size, and profitability.

The Following are the main objectives from this study are given below:

- To analyze whether the relationship across industries with respect to the length of CCC, and working capital policies.
- To investigate 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.

Literature review

Working capital management is important for all businesses, in spite of what the scale of the corporate and therefore the business during which it operates. Why, it suggests that to manage assets and liabilities so the corporate doesn't have issue paying its debts within the short term. Therefore if any company is unable to induce properly manage their own capital desires further funds to pay its short term debt and people further funds ought to have some prices related to them. Therefore, it's all over from discussion the liquidity management is necessary because the profitability of an ongoing concern.

In literature the finance researches approaches to capital management from two different aspects: static or dynamic views (Moss and Stine, 1993; Lancaster *et al*., 1999; and Farris and Hutchison, 2002). The static read of the liquidity measures analysis of the liquidity at a given moment, on the contrary continuing liquidity of the assets of the corporation is measured by dynamic display. The relation between profitability and liquidity was examined, as measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia using correlation and regression analysis. The study found that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio that affects profitability. How to measure the dynamics of the cash conversion cycle cash is used which measures cash flow and the cash flow in days for a certain period of time. Using static vision researchers used ancient indexes computed from the budget that is current ratio and quick and analyzed the policies of capital management and finance work. Into another study of non-financial companies in Istanbul stock exchange (ISE) of Uyar A. (2009) found a big negative relationship between length of CCC and firm size and profitability. Shin and Soenen researched the relationship between working capital management and value creation for shareholders. The standard measure for working capital management is the cash conversion cycle (CCC). It is measured by estimating the inventory conversion period and the receivable conversion period, less the payables conversion period.

Make a big negative relationship between profitability and therefore the length of the CCC was found inside empirical studies conducted to appear at a compromise profitability of liquidity (Jose *et al* 1996; Sen and Oruc Eljelly 2004, 2009). For measuring the efficiency of working capital management, performance, utilization, and overall efficiency indices were calculated instead of using some common working capital management ratios. Setting industry norms as target-efficiency levels of the individual firms, this paper also tested the speed of achieving that target level of efficiency by an individual firm during the period of study. Another study of 22000 public corporations restricted by Hutchison *et al*. (2007) they showed a positive relationship between the CCC shorter and more better profitability. Shah and Sana (2006) found a major negative relationship between CCC and therefore the net income margin within their study regarding the impact of working capital on the profit in the Oil & Gas Pakistan.The other drawback with investigated during this work is its aggressive policies within the working capital management. Relating to aggressive currentassets financing policyis balanced with a comparatively onservative financial policy within the policies Capital. In light-weight on the highest of this study is predicted negatively quantitative relation the length of the CCC and profitability and a positive relationship between the degree of aggressiveness and company profitability. Majority of the hypothesis to be verified within the course of this study are as follows:

Hypothesis Development

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.

MATEIALS AND METHODS

The study on the idea of secondary information collected financial statements of 200 non-financial firms, as well as 5 industrial groups listed stock exchange in Karachi, Pakistan for this year 2009.

Firms with negative equity and profitability are excluded from this study. The study explores the link between the length of CCC, firm size, firm profitability and / conservative policies in working capital aggressive five business groups. Hypotheses are developed to verify the link of CCC with policies of working capital, firm size and profitability. Descriptive analysis, Pearson correlation and also the analysis of variance (ANOVA) with post-hoc tests (least vital difference) were used the empirical research. as well as those variables, sales and total assets shall be used as the measure of the size of company, justify the receivable days, days of inventory, and to clarify days collectable (payable) measures of the cash conversion cycle of the corporate and return on equity and return on activities are used because the measure of the profitability. On alternative hand, the activity reporting the view of the present liquidity position of enterprises. The policies of the working capital of the companies are classified as capital and investment policy of working capital of financing policy work.

Working capital investing policy

Investment policy of working capital of the company is aggressive or conservative. The investment policy of assets of the company was that the quick ratio of current assets to its total assets. The level of aggressiveness depends on the strength of the relationship. If the quantitative relation is lower, it means company has adopted a policy of aggressive investment and it uses less share of liquid assets remains low or the amount of cash in hand and if the relationship magnitude (ratio) of current assets to total asset is higher, indicates the company's conservation investment policy.

Working capital financing policy

The other hand, the labor policy of financing the company's capital is that the magnitude relation between current liabilities to total assets. If the magnitude relation of total current liabilities and total current assets implies that the company has been following the policy of aggressive finance and the vice versa. In company financing policies aggressive uses a lot of servings of current liabilities and least parts of long-term debt. The policy of capital management of company was analyzed within the timescale for the individual correlation matrix 2009. It 'was conjointly developed to look at the strength of the link between the policies of management of capital, ROA and ROE (profitability measures), firms' size enterprises and CCC. The importance level of Pearson correlation coefficients is analyzed to 0.05 to 0.01.

Empirical Analysis

Table shows the descriptive analysis of the various sectors in Pakistan taken throughout this study. The results of descriptive analysis hold the values of average total assets, sales, account receivable Days (Ared), Inventory Days (IND), days Accounts payable days (APD), cash conversion cycle (CCC), Investment (INV), financing policy (FIN), return on Assets (ROA), return on Equity (ROE) and current capital ratios (CAR) of twelve industries in Pakistan. The Common values of assets and sales (in KSE) five industries activity measuring sq. 41,389,662 and 50,701,582 in solid. The mean of CCC is 208.20 days for all the sectors and from this price average turnover of stocks, higher sales and financial profitability common shares issued day's payable. Analyzing the common values of the CCC in all as on a individual basis, completely it had been found that the Oil & Gas have the CCC negative that suggests that the business is very economical to gather its assets due from customers before paying the suppliers, however this policy of payments and relax strict payments isn't always sustainable. The CCC electricity is a kind of twenty-nine, which the CCC second shortest at intervals the listing of the twelve sectors throughout of this study. These temporary mean values of Oil & Gas and electricity is followed by cement, technology, automotive, chemical, food, cotton yarn, fabrics, home goods, spinning and private property. The means of CCC Wyeth Pakistan limited that the best of all industries.

The mean value of the CCC shows fortified Manufacturers of consumer goods have been capable of reducing by only the CCC. the CCC This suggests Higher fortified these companies to the store alone inventory longer time, with a mean of 370.19 days and additional take-Time in the collection of payments from customers with a mean of 108.26 days. But in these instance book collections is average above average payment to suppliers alone. The resulting high-the CCC of this field is only for the days of high inventory. That analysis indicates fortified goods industry rested personal difficulties in Pakistan and need to review its policies. Average values of investment policies of the companies and the policies of finance for companies show that the average company, are following aggressive and the investment policies and the policies of conservative financial policies. as a result of the typical quantitative relation of current assets to total assets of these five groups of the business could be a smaller amount of 0.5, which proves that company area unit following aggressive the investment policies of, whereas the quick ratio between the whole current liabilities to total assets, that is additionally however 0.5 indicates that company are following policies finance operating conservative. The everyday values of ROA and ROE indicate that the media industries have really low returns on assets and rate of negative 0.15. The typical ROE of five business groups is 0.25 suggests that companies face serious issues of growth and have low Return on investment.

ANOVA Results

The results of the ANOVA will help to verify the assumptions which are used to explain the relationship with CCC policies of working capital management, firm size and profitability.

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	CCC, W C, C R[b]	.	Enter

a. Dependent Variable: ROA
b. All requested variables entered.

Hypothesis 1

There are no differences among the length of cash conversion cycle of firms across different industries. The purpose of testing the primary hypothesis and to research whether or not the industries is significantly from each other in terms of size of CCC, ANOVA with least significantly differ take a look

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.710[a]	.504	.411	.0398843

a. Predictors: (Constant), CCC, W C, C R

at (LSD) by logical post hoc test was conducted. Supported the findings of ANOVA with F-test value of ROA is 5.415 that are very significant 5% level, as listed in Table. The hypothesis is rejected and it's terminated that there's vital distinction among industries in terms of length of CCC. To found out wherever there are such variations the post hoc tests of decreased variations takes place that proves that the oil and gas trade is incredibly completely different from all the opposite sectors.

Moreover, the results additionally counsel that the many variations are found among the textile, cement, oil and gas and Wyeth Pakistan limited.

Hypothesis 2

There are no differences among the working capital investment policies of firms across different industries. One-way ANOVA was applied collectively to regulate our second hypothesis. Check to verify the relative degree of / aggressive conservative investment policies among industries ANOVA with false belief take a look at test lower distinction (LSD) is conducted and therefore the results square measure given in Table three. The ensuing worth of F-test value of ROE 7.870 (vital is critical is important) at the 5% shows that there is significant variations between industries in terms of employment policies of capital investment.

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.026	3	.009	5.415	.009[b]
	Residual	.025	16	.002		
	Total	.051	19			

a. Dependent Variable: ROA
b. Predictors: (Constant), CCC, W C, C R

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.037	.019		1.943	.070
	W C	3.026E-008	.000	.678	1.979	.065
	C R	-.001	.023	-.023	-.056	.956
	CCC	.000	.000	-.113	-.299	.769

a. Dependent Variable: ROA

Regression (ROE)

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	CCC, W C, C R[b]	.	Enter

a. Dependent Variable: ROE
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555[a]	.308	.178	.0981716

a. Predictors: (Constant), CCC, W C, C R

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.069	3	.023	2.372	.109[b]
	Residual	.154	16	.010		
	Total	.223	19			

a. Dependent Variable: ROE
b. Predictors: (Constant), CCC, W C, C R

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.092	.047		1.944	.070
	W C	1.371E-009	.000	.015	.036	.971
	C R	.050	.057	.421	.864	.400
	CCC	-.002	.001	-.682	-1.532	.145

a. Dependent Variable: ROE

To search out wherever there square measure these variations, a logical fallacy Least vital distinction (LSD) check was applied to check the trade average values of the investment policies within the sample matched.

Hypothesis 3

There are no differences among the working capital financing policies of firms across different industries. A profitability, to check the relative degree of / aggressive conservative Financial policies among industries and our third hypothesis, multivariate analysis with logical fallacy tests less distinction (LSD) is distributed and results are given in Table CCC.

The ensuing price of F-test of CCC is 9.943 that are critical at 5% shows that there are major variations among industries in terms of working capital financing policies. To find out wherever such variations square measure a logical fallacy least important distinction (LSD) testing was used to compare the values of finance policies of industry the combined sample mean.

Correlation Results

Correlation matrix is intended them analysis the relation between cash conversion cycle, measures of profitability, the quantitative ratio of current assets, total assets, revenue and also the industries investment and financing policies and to test our hypothesis 4 to 6.

Hypothesis 4

An aggressive investment working capital policy is not accompanied by an aggressive financing policy. Results of matrix within the Table shows that there is a serious correlation statistics between the relation of the TCA / metallic element (INV) and TCL / metallic element (FIN) to the half level the importance, it suggests that larger (current assets) to the total assets is amid higher (current liabilities) to total assets. So, this hypothesis cannot be rejected as a results of, on the concept of correlation results lower quantitative relations INV (means the investment policy of aggressive assets) lower the ratio FIN (Means policy operating capital financing Conservative). This result contradicts thereupon of Afza and Nazir (2008), within which they ended that a policy of aggressive investment WCM is amid associate degree aggressive policy of financing WCM.

Hypothesis 5

There is no relationship between firms' CCC and profitability And 'obvious from Table shows that the regression-ROA is one of the determinants of CCC to 1% level.ROA significant and CCC is positively correlated. Accordingly, based upon the results from the regress ion we conclude that the profitability is one of the determinants of the CCC, and then 5 hypotheses are rejected.

This result is in agreement with results of Uyar A. (2009) which conjointly found an important relationship, however negative relationship between length of the CCC and return on assets (ROA). Thus it's complete that the most profitable companies whose operations tend to own shorter time CCC to maintain their profit levels.

Hypothesis 6

There is no relationship between CCC and firm size. By the results of regression presented in Table, it is clear that the size of the business, as measured by the natural logarithm of sales has no significant relationships with CCC. This finding is in contradiction with those of Uyar A. (2009), who found a significant negative relation between business size in length and CCC. Apart from this it is evident from the results of the regression that the policies of investment and financing work have meaningful relationships with CCC. Working capital investment policy has a significant positive relationship with CCC to level 1%, which means that companies have a policy of working capital investment aggressive ted have CCC short and vice versa. Working capital investment policy has a significant negative relationship with CCC at 1% level of significance. Which means that companies have a policy of aggressive investment in working capital also tends to have shorter CCC and vice versa.

Conclusion

This study, conducted on listed corporations of Karachi stock exchange (KSE), presents the typical values of 5, the / metallic element magnitude relation TCA, and reports TCL / metallic element. It absolutely was ended that there's a major distinction between industries than 5, politics and policy INV FIN. The study results show that the trade of oil and gas have shorter 5 and differs considerably from all different industries. Another vital than 5 is that the sphere of non-public property has the longest 5. This study investigates the link between its investment policies of capital and financing for twelve disagreement completely different} industries and located that industries differ considerably with relevancy their investment policies and finance work. The correlation statistics between life and therefore the investment policies and finance for the industries indicate that industries following policies of aggressive capital investments tend to follow the conservative policies of capital finance. These findings are in line with the results of Weinraub and Visscher (1998) that showed a correlation between indirect policies of quality management and financing policies.

Correlation analysis, nonparametric data analysis, and multiple regression procedures are all used to evaluate the cross-sectional relationships between profitability measures and the cash conversion cycle. Without controlling for size differences a strong negative relationship between size and CCC, along with a negative relationship between size and profitability, makes the CCC-profitability relationship insignificant in the Financial Services industry. Furthermore, it absolutely was noted that there's a major negative relation between firm size (measured by Total Assets) and therefore the length of CCC. Thus it will be complete that large companies and short the vice versa. This outcome is in step with that of Moss and Stine (1993) and Uyar A. (2009).

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