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HOW DO OPERATING LIQUIDITY AND FINANCIAL LEVERAGE INFLUENCE

FIRM PERFORMANCE

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Abstract

Operating liquidity and financial leverage are two important features of overall firm's management. This study scrutinizes the association among financial leverage and different procedures of operating liquidity. Further the study has reconnoitered the joint effect of financial leverage and Operating liquidity on the performance of firm, for this purpose Return on Assets can be taken as the profitability that could gauge the profitability of firm and cement sector firms listed in Pakistan Stock Exchange have been taken as a population. For this purpose secondary data have been collected for 10 years from 2011 to 2020 through annual audited reports of sampled firms and through Business recorder. A casual research methodology has been used to explore results. Data was analyzed by using STATA software. For the sake of estimation, ratio Analysis and the panel dataregression model is incorporated to regress and construe association between the both dependent as well as the independent variables and want to find the cross sectional heterogeneity. Hausman test implies the presence of cross section heterogeneity hence, model move toward the fixed effect. Key results of the study imply that there is significant association among financial leverage and different measures of Operating liquidity. Furthermore from results of this study it is also concluded that financial leverage and Operating liquidity have noteworthy effect on cement sector performance of the firm. This study will help not only cement sector but also other sectors firms listed in Pakistan Stock Exchange by providing close eye view on relation between financial management and the operational management and their impact on firm Success or failure.

Key Words: Financial Leverage, Operating Liquidity, Financial Performance, Fixed Effect Model

1. Introduction

1.1 Background to the study

Different authors describe the capital structure (CS) of firm in different ways. According to Brealey (2012) in his book "Principles of Corporate Finance" define Capital Structure (CS) is the consolidation of all debts and the firm's equity. Schlosser and Michel(1989), Capital Structure (CS) is a percentage of debt to whole funds of the firm. In other words the CS is the combination of the funds that firm uses (Ordinary, preferred shares and debts) to finance its overall assets. Firms which are extremely opened are those which use higher debt portion in their CS because in financing decisions debt is considered to be cheaper finance source and on other hand firms which are

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unlevered are considered those firms that do not use the debt in CS. Firms which are more levered that bring more profit (tax shield) for the existing shareholders, on the other hand, it also bring the risk to the equity holders because it could create the costs agency and cost of bankruptcy (which include direct and indirect) (Titman S, Tompaidis S, Tsyplakov S, 2004).However, leverage can be defined into two ways that are: financial and operating leverage.

Mohohlo et al. (2018), states that operating the leverage is the aptitude of any firm that could use the fixed operating cost in direction to intensify the influence of changes in the sales on the firms operating profit that is highly associated and it is associated with investment activities (such as acquisition of capital). Financial leverage (FL) describes the connotation between the owner and the funds that has been borrowed in the capital structure of the firm which mainly include the common preferred debt and equity has been utilized to finance the total assets of the firm operations and financial growth Saksonova, S. (2006). Risk engaged with both kind of leverage however their effective implementation can bring significant benefit (Pandey, 2004). Financial leverage (FL) and the operating liquidity (OL) are two imperative features of overall firm management Goel et al. (2015).

Operating liquidity (OL) is to measure the firm's solvency in short term. Basically it shows the liabilities and assets or balance between the available resources in the cash from (Ware, 2015). If it happens that the firm has some insufficient cash which might lose the firms advantages that has been given by the suppliers. The organization should maintain the sufficient liquidity doe every stakeholders due to having the keen interest in the organizational.

Goel et al. (2015) state that determination of the optimum CS that could increase the assets of the shareholders which is an important decision of financial manager, because one-sidedness (debt or equity) would adversely affect the wealth of shareholders. For the smooth operations of the firm there is a need that leveraged decisions to be balanced on nonstop basis because FL assumes an essential part for the fruitful operations of the business firm. Thisstudy is an attempt to experimentally break down connection between operational liquidity and financial leverage and their control on the profitability of the company.

1.2 Problem Statement

The definitive aim of a firm is to increase its profit or decrease its cost. Yet, sustaining liquidity of the organization is as a main focus too. However, the trick is that maximizing profits at liquidity cost that brings thoughtful issue related to the firm. For that reason there should be an interchange between these two aims of firms Gill, A et al. (2010). If management does not consider profit than the survival of firm may not possible for long term. Further if management does not consider about liquidity, it would face insolvency and bankruptcy problems. For these causes the management of the working capital should be given appropriate consideration that will impact the performance and firm's profitability.

Most of the research studies Amjad S.2007; Khidmat, W. and Rehman, M. (2014) in Pakistan have been conducted on the firms listed in Karachi Stock Exchange (KSE) and Return on Equity (ROE) have been used as an indicator of profitability by the researchers for examining the result of leverage and on the firm's profitability. The study under discussion focused on cement firms listed on Pakistan Stock Exchange (PSX) and Return on Assets (ROA)is used as profitability.

1.3 Research Questions

- What will be influence of Financial Leverage (FL) on firm performance?
- What will be impact of Operating Liquidity (OL) on the performance of a firm?
- What will be combined effect of both FL and OL on firm performance?

1.4 Objectives of this Study

Objective of this study is to look at The Impact of:

- Financial leverage on financial performance of cement Firms listed in Pakistan stock exchange.

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- Operating liquidity on financial performance of cement Firms listed in Pakistan stock exchange.

1.5 Significance of the study

Since all the concepts examined are commonly recognized. However, this research is different from preceding studies conducted in the features from PSX and also sample consists of different sector from past studies and also took larger and main firms of cement industry. Hence, the problem this study aims to assess the theoretical as well as the empirical literature to deal with the hypothesis and the association between the profitability and the liquidity.

This research is very helpful for every stakeholder (Suppliers, shareholders, employees and creditor etc.). As supplier of goods first verify much conscious to distinguish about the liquidity position of a firm to which he is supplying good on credit. So, a company wishes to carry enough liquidity, so liquidity really moves profits from which a much of the share is distributed into shareholders.

2. Literature Review and Hypothesis Development:

Eriotis, Frangouli and Neokosmides (2002) discussed the presence of a significant but the adverse impact of the debt to equity ratio on firm's profitability. Frangouli and Neokosmides (2002) used panel data techinique to assess the connection between the equity ratio and the debt in the profitability of the firm. Firms which prefer equity are more beneficial than the firms which considered contributing by debt capital. (Margaritis&Psillaki, 2010) Found the positive connection of leverage and profitability by examining the association among the structure of capital and the performance of French manufacturing companies by relating non-parametric data envelopment analysis (DEA) method.

Rehman et al. (2013) reveals that the research to catch out the association among firm performance and leverage in the sugar companies listed on Karachi Stock Exchange (KSE). By applying pool regression panel data analysis he found that sugar companies listed in KSE can able to improve the enactment by using leverage up to significant level because debt to equity ratio have a positive relation with return on assets and sales growth but on the other hand EPS has a undesirable correlation with return on equity and net profit margin. (Hasan, 2014)Found highly adverse correlation among leverage and ROA by tested the 36 firms listed on Dhaka Stock Exchange for the time duration 2007-12.

Kaya (2014) tests the profitability ratios of highly levered wholesalers and retailers in contrast with the organizations those have lesser levels of debt. Descriptive analysis and ratio analysis results from the all US wholesalers and retailers firms on Compu-stat database show that in terms of both liquidity and profitability firms agonize. Then Patel (2014) in his article "impact of leverage on profitability: a study of Sabar dairy" tests the profitability with leverage of a single dairy firm over thirty years by employing regression analysis on return on capital employed (ROCE), earnings per share (EPS), return on equity (ROE) and return on assets (ROA) as profitability measures and degree of operating leverage, degree of financial leverage and degree of total leverage were used to measure leverage. All relations were positive except the relationship between ROA and degree of operating leverage.

Akhtar et al. (2012) also established that there is an optimistic connection among the financial leverage and profitability of 20 businesses of fuel and energy division listed at Karachi stock exchange KSE, while using percentage gearing ratio, percentage debt to equity ratio as the measures for the independent variable Financial leverage, and the dependent variable Financial performance indicators were percent return on assets (ROA), percent return on equity (ROE), percent dividend coverage ratio, sales as the percent of total assets, net profit margin, and sales growth percentage.

How liquidity and solvency impacts chemical sector in Pakistan was tested by Khidmat and Rehman (2014) take a sample of 10 companies out of thirty six listed businesses in Karachi stock exchange over nine years using explanatory, analytical and descriptive methods. So liquidity indicators were current ratio and quick ratio, solvency

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indicators were debt ratio, debt to equity ratio and coverage ratio and for performance indication return on assets and return on equity were chosen. Liquidity and solvency were independent variables and performance was independent variables. It was concluded that liquidity ratio affects profitability positively however solvency affects profitability negatively.

After reviewing the previous literature we are able to develop the following hypothesis:

H_1 = There is a significant association between FL and OL.

H_2 = There is a significant association between OL and profitability.

H_3 = There is an association between financial leverage and profitability.

There are numerous studies found in the empirical reviews that financial leverages and operating liquidity has a considerablyinfluence on the performance of the firms. These studies are conducted by the international researcher (Goel et al. 2015; Ware, E. 2015; Eriotis et al. 2002). In Pakistan, researchers investigate the influence of financial leverages and operating liquidity on the firm in pharmaceutical sectors, energy sector (Akhter et. al 2012) and chemical sector (Khidmat, W and Rehman, M. 2014). There are very restricted studies found on the performance of firm in the other sectors like textile sector (Amjed, S. 2007), sugar sector (Rehman et al. 2013) and cement sector. This report preferred to investigate the impact of financial leverage and operating liquidity in cement sector by making a base paper of Goel et al. (2015). It is also observer that previous studies of Pakistani researcher surrounding around KSE as all studies are conducted before the formation of PSX and also still now no research has been conducted on cement sector of Pakistan.

3. Research Methodology:

3.1 Data & Variables:

There are 22 Cement firms listed in Pakistan Stock Exchange. For the sake of accuracy and proof of the data we have selected only from Cement organizations which are listed in PSX. There are 22 Cement Businesses are listed in Pakistan Stock Exchange from which we have selected 18 firms for which financial statements from 2011 to 2020 are available. 18 companies are our sample because randomly 18 firms have been selected from these 22 firms. As previous study held on chemical sector by Khidmat, W and Rehman (2014) they also selected 10 listed chemical firms from 36 listed firms randomly. So, this study also used simple random sampling (SRS) and randomly 18 firms have been selected on the base of accessibility of data from 22 listed cement firms.

FL and OL are the independent variable of this study. So as to think about the effect of FL on OL debt ratio will be used as a proxy for the FL as previous studies used for FL (Asad, M and Yousaf, S (2014); Zeitun, R., & Saleh, A. S. (2015).) and CCC (Goel et al. 2015), OCF (Goel et al. 2015), Current Ratio (Amjed, S 2007), as proxy variables for the OL. The debt to total assets (D/TA) is a sign of FL. It describes that the percentage of a total assets that were contributed by creditors. The calculation of debt ratio can be obtained by dividing company total liabilities over total assets of a company. CCC is the measure to gauge the liquidity that how quickly a firm can change cash on hand into inventory and account payables through selling's and A/R and then back into cash. Current ratio is the measure of the short term solvency of the firms that how rapidly a company can change its current assets into cash for the settlement of short term liabilities. An OCF margin is computation of the cash a firm can produces from its fundamental operations per dollar of sales. A high OCF margin can depict that a firm is productive in changing over sales into cash, and may also be a sign of high earnings.

Control variables are those variables that are independent variables and are not related to the study but affect the dependent variable are termed as control variable. In our analysis, we use the four control variables that are age of firm (Goel et al. 2015), sale (Dogan, M. 2013), size (Amjed, S. 2007; Dogan, M. 2013) and operating cash flow (Goel et al. 2015). Purpose of these control variables are to minimizing the error term.

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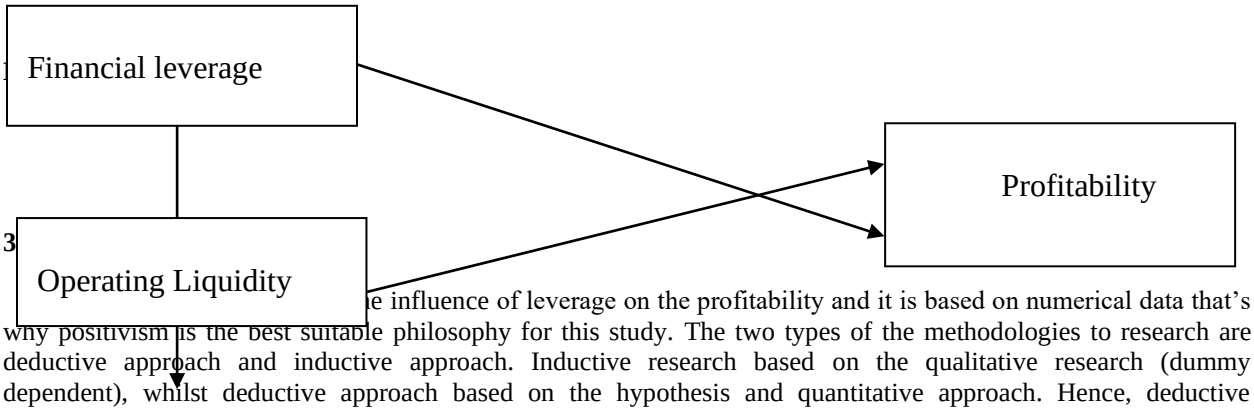
Table: 1 (Details of the variable used in the study)

Variables	Description/Construction of the Variables
(FL)	TD / TA (Asad, M and Yousaf, S 2014; Zeitun, R., & Saleh, A. S. (2015).) Financial leverages are calculated by dividing total debt to total assets.
(CR)	CA / CL (Amjed, S 2007) Current ratio is derived by dividing current assets over current liabilities,
(CCC)	Inventory + Receivable – Payable(AL IN DAYS) (Goel et al. 2015) Cash conversion cycle derived by adding inventory into accounts receivable and subtracting accounts payable.
(OCFM)	OCF / Sales (Goel et al 2015) Operating cash flow margin is derived by dividing operating cash flow over sales.
(ROA)	NP / TA (Kaya, 2014) Return on assets is derived by dividing net profit over total assets.
Age	Current Year – Year of Incorporation (Goel et al. 2015) Age of the firm is derived by subtracting by the current years into years of incorporation.
Size	Total Assets (Amjed, S. 2007; Dogan, M. 2013) Size of the firms is defines by the total assets. The firms who have large scale of assets will be considered as large sale.
Sales	Net Sales (Dogan, M. 2013) Sales are considered as net sale. That is total sale minus sales discount, returns and allowances.
(OCF)	Net Cash Flow from all Operations (Goel et al. 2015) Net cash flow is derived by adjusted net income for changes in all non-cash account (like depreciation and amortization) on the balance sheet.

3.2 Theoretical framework:

Independent variable



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e influence of leverage on the profitability and it is based on numerical data that's why positivism is the best suitable philosophy for this study. The two types of the methodologies to research are deductive approach and inductive approach. Inductive research based on the qualitative research (dummy dependent), whilst deductive approach based on the hypothesis and quantitative approach. Hence, deductive approach considered as a more useful for this study and previous study of Khidmat, W and Rehman (2014) and Akhtar,S et al. (2012) also uses deductive approach. Quantitative strategy is appropriate for this study because of the use of numerical data.

Multivariate regression model have been used as Amjed, S (2007), Goel et al. (2015) and Dogan, M. (2013) used in their studies. So, by making Goel et al. (2015) a base paper these 6 models have been used for investigating influence of FL and OL on firm performance.

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Table: 2 Models for investigating effect of leverage on liquidity

Models	**Equations**
Model 1	$CCC = \alpha + \beta_1 FL + \beta_2 Sales + \beta_3 size + \beta_4 Age + \beta_5 CFO$
Model 2	$CR = \alpha + \beta_1 FL + \beta_2 Sales + \beta_3 size + \beta_4 Age + \beta_5 CFO$
Model 3	$OCFM = \alpha + \beta_1 FL + \beta_2 Size + \beta_3 Age$

For the 2nd goal of study is to inspect combined result of FL on OL on the profitability of the firm and enlarge 3 more models (Table: 3) every model have their own measures of OL. ROA used as a dependent variable for all of these three models.

Table: 3 (Models for investigating effect of FL and OL ON profitability)

Models	**Equations**
Model 4	$ROA = \alpha + \beta_1 FL + \beta_2 CCC + \beta_3 Sales + \beta_4 Size + \beta_5 Age$
Model 5	$ROA = \alpha + \beta_1 FL + \beta_2 CR + \beta_3 Sales + \beta_4 Size + \beta_5 Age$
Model 6	$ROA = \alpha + \beta_1 FL + \beta_2 OCFM + \beta_3 Sales + \beta_4 Size + \beta_5 Age$

These models are considered as multivariate regression models. Multiple regression models are those models where there is one dependent variable and two or more than two independent variables [y=f(x1, x2, x3…..xn)}. But in the multivariate regression model there are multiple dependent variables and multiple independent variables [(y1, y2, y3……yn) = f (x1, x2, x3…… xn)]. In this analysis, here are multi-dependent variables and multi-independent variables. That'sway; this analysis is established on the multivariate analysis instead of multiple regression models. Secondly, to attain the second objective i.e. to inspect the combine impact of financial leverages and operating liquidity on the firm performance, model 4, 5 and 6 has been developed by changing independent variables. As in mode 4 cash conversion cycle have been used, model 5 use current ratio as independent and model 6 use operating cash flow margin.

Previous researchers Amjed, S. (2007); Goel et al. uses this model by considering ROE as dependent variable and developed 3 models all three models have similar independent variable except short term debt, long term debt and total debt respectively.

4. Results and Discussion:

4.1 Descriptive statistics:

Descriptive analysis is the brief summary of a 22 cement companies in PSX data set. It explains and spread the central tendency of the data and could for, the mean. By the given table, mean, standard deviation, minimum and maximum value of CCC, CR, OCFM, FL, Sale, Size, Age and OCF. Mean value implies that averages of the variable in a given data set and the S.D shows the deviation from its mean. Whereas, maximum and minimum values implies the lowest and highest values of the variable of the cement industries in a given period of time.

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Variable	Mean	S.D	Min	Max	Observations
CCC	1.25e+08	1.88e+09	-7.76e+09	1.11e+10	N = 180, n = 18, T = 10
CR	1.345037	1.474028	.001172	13.41008	N = 180, n = 18, T = 10
OCFM	.0958525	.5800539	-5.917987	1.0226	N = 180, n = 18, T = 10
FL	.2840313	.2140257	.01564	1.470735	N = 180, n = 18, T = 10
Sale	1.05e+10	1.07e+10	8.06e+07	1.470735	N = 180, n = 18, T = 10
Size	1.62e+10	1.75e+10	4.27e+07	9.73e+10	N = 180, n = 18, T = 10
Age	30.9375	10.80978	12	61	N = 180, n = 18, T = 10
OCF	2.41e+09	3.79e+09	-1.16e+09	1.90e+10	N = 180, n = 18, T = 10
ROA	.0571094	.0982128	-.1836372	.2457447	N = 180, n = 18, T = 10

As shown in given below model 1, 2 and 3 null hypothesis of Hausman test rejected so, results supports the significant impact model. As described in methodology first check the impact of FL on OL for this purpose model 1, 2 and 3 developed. Result of model 1, 2 and 3 shows that FL has a significant impact on OL.

Results of Model 1:

Dependent Variable:		**CCC**		
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FL	-71.812	0.000	7.23	0.000
Age	-3.01e	0.000	12.45	0.005
Sale	0.1098	0.005	3.76	0.012
Size	0.1235	0.000	3.89	0.000
CFO	-0.3244	0.007	3.02	0.004
Adj. R Sqr	.6843			
Hausman Test				
Chi Square Table	14.168	Prob.		0.002

Model 1 shows CCC as dependent variable for investigating impact of FL on OL .From the results of the table above it is discovered that the controlled variables firm's size, age, sales and CFO are statistically significant and Cash Conversion Cycle directly has direct relation with financial leverage. And the value of Adj. R Sqr. (.6843) shows the suitability of the model.

Outcomes of findings from model 2 shows that FL have noteworthyinfluence on current ratio and also have a positive relation and also other all variables have a significant relation. And the findings in model 2 shows adjusted. R sqr value .7956 which approves that the model is fit.

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Results of Model 2:

Dependent Variable:		**CR**		
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FL	-3.17	0.000	3.87	0.001
Age	0.178	0.009	13.98	0.000
Sale	-2.872	0.000	4.78	0.002
Size	1.370	0.005	7.54	0.000
CFO	4.90	0.000	0.23	0.005
Adj. R Sqr	.7956			
Hausman Test				
Chi Square Table	42.581	Prob.		0.001

This model offers the results of positive as well as noteworthy relationship among current ratios and financial leverage, except CFO all controlled variables are significant shown by Adj.R sqr. (.79562)

Results from Model 1, 2 and 3 which is used to examine impact of FL on OL, results shows that as an organization become more levered it tooturn out to be more liquid. These results indicate that firms which raise capitals from debt are cast-off to finance their current assets and also pay off their current liabilities. Simply from this can states that as debt increases firms liquidity also increased.

Results of Model 3:

Dependent Variable:			**OCFM**	
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FL	0.36	0.000	-5.34	0.001
Age	-1.86	0.004	-2.54	0.000
Size	1.05	0.000	-3.87	0.009
Adj.R Sqr	.6498			
Hausman Test				
Chi Square Table	88.021	Prob.		0.000

The table depicts that OCFM is significantly affected by leverage position of a firm. However this model spectacles contradicting results from previous two models that leverage position has negative relationship with liquidity position and the adj. R square showing model fitness at .64989. From the results of models 1, 2, 3 it is clear as the firm becomes more levered, its liquidity rises as well. So, this study may refrain from it that the firm that raises debts for use it mostly to fund their current assets and to pay off their current debts, which is aligned through the working capital's conservative approach, that is to finance short term assets with long term loans. From the above findings and interpretation it is cleared that our first hypothesis H_1 Is accepted as there is significant relationship between financial leverage and operating liquidity and H_0 is rejected.

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Second objective of this report was that to examine the influence of FL and OL on performance of firms, for this purpose 3 more models developed named as model 4, 5 and 6. For this purpose different gauges of OL as independent variables beside with age, size and sales as control variables. FL was also cast-off as an independent variable and return on assets (ROA) as dependent variable in all 3 models. Results of Hausman test repeated to assist the panel data fixed effect method. Furthermore results of these 3 models show that there is noteworthy relationship among FL and OL on firm performance.

Results of Model 4:

Dependent Variable:			**ROA**	
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FL	-0.18	0.000	17.34	0.002
CCC	-5.83	0.001	-4.56	0.000
Age	0.010	0.000	6.79	0.004
Size	-3.69	0.003	-10.29	0.000
Sale	6.321	0.000	-9.83	0.009
Adj. R Sqr	.5356			
Hausman Test				
Chi Square Table	62.116	Prob.		0.001

This model shows that ROA has negative correlation with CCC and positive with FL. Again the controlled variables were statistically significant and the model had good fitness level. Results of model 4 show Adj. R Sqr .5356 which is the sign of fitness level of this model.

Secondly, combined effects of leverage and operating liquidity on firm performance had to be tested. For this purpose three models named model 4, model 5 and model 6 were utilized and it resulted that performance of the firm was significantly affected by the operating liquidity and financial leverage. ROA was used as dependent variable and financial leverage and operating liquidity were used as independent variables. To backing the panel data fixed effects approach, Hausman test results were used

Results of Model 5:

Dependent Variable:			**ROA**	
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FL	-0.17	0.000	-17.43	0.000
CR	0.0205	0.009	-1.76	0.000
Age	0.102	0.000	6.34	0.004
Size	0.314	0.005	-5.87	0.000
Sale	-3.691	0.000	-9.72	0.000
Adj. R Sqr	.5835			
Hausman Test				
Chi Square Table	58.461	Prob.		0.002

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It portrays the picture of negative correlation between current ratio and firm performance and positive relation between current ratio and leverage. Model was good fit and controlled variables were statistically significant. Results of model 5 show Adj. R Sqr .5835 which is the sign of fitness level of this model.

Results of Model 6:

Dependent Variable:		**ROA**		
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FL	0.1879	0.000	-16.30	0.000
CR	0.0901	0.001	9.40	0.005
Age	0.209	0.000	6.53	0.000
Size	1.201	0.004	-11.7	0.000
Sale	2.619	0.000	11.89	0.001
Adj. R Sqr	65.437			
Hausman Test				
Chi Square Table	.4558	Prob.		0.000

Financial leverage has negative and OCFM have positive relation with firm's returns. Also controlled variables were significant statistically and model had good fitness. Results of model 6 show Adj. R Square .6543 which is the sign of fitness level of this model.

From the above models 4, 5 and 6 it is clear that H_2 accepted as OL have significant impact on firm performance and H_0 is rejected. Above findings also indicate that H_3 is also accepted as there exist a relationship between firm performance and FL that's why H_0 is rejected.

As discussed above in introduction of this report that firms financial management and operational management have major role in firm's performance. Complete results of our findings from model 4, 5 and 6 support this argument as our findings shows that FL and OL are key determinants of any firm's performance. So, above results of model 4, 5 and 6 results states that both financial leverage and operating liquidity significantly affect firm performance. Financial leverage negatively affects firm performance. The reason can be said as it causes increase in financial cost. Operating liquidity affects firm's performance positively because of the assistance in requirements of huge funds for machinery and to support in day to day operating activities

4.2 Correlation

The following table shows the correlation coefficient which processes the strength and direction of a linear relationship between two variables. The value of correlation is always between +1 and –1. Where, +1 implies to positive one to one relationship of the variable and -1 implies the negative one to one relationship. Value of correlation always lies between the +1 and -1. In the given table OCF is highly correlated with Age, FL, CR, Sale and ROA as compare to the other variables.

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	CCC	CR	OCFM	FL	SALE	SIZE	AGE	OCF	ROA
CCC	1.0000								
CR	0.1650	1.0000							
OCFM	0.0621	0.1279	1.0000						
FL	-0.2012	-0.3824	-0.1078	1.0000					
SALE	0.1252	0.4254	0.2274	-0.376	1.0000				
SIZE	0.2472	0.2090	0.1498	-0.302	0.7882	1.0000			
AGE	0.0586	0.0638	-0.0545	0.1362	-0.1484	-0.108	1.0000		
OCF	0.0817	0.4334	0.2598	-0.351	0.9256	0.7694	-0.123	1.0000	
ROA	0.3179	0.4941	0.2895	-0.618	0.4734	0.2984	-0.043	0.4950	1.000

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion and recommendation's

Profitability is main goal of almost each business firm. In former studies leverage have both positive and negative effect on profitability. Firms which are highly levered are those which use higher debt portion in their CS because in financing decisions debt is considered to be cheaper source of finance and on other hand firms which are unlevered are those which did not use debt in their CS. Firms which are more levered that bring more profit (tax shield) for the existing shareholders but on the other hand it also bring higher risk for the equity holders as it generates agency costs and also bankruptcy cost (working capital, trade off theory).

To investigate that enterprises with high profit have to use more leverage (Akhtar et al. 2012). Results of previous findings show that use of leverage lead the companies toward the improvement of the financial condition of the corporation by boosting the chances of growth in the division in which they work And also our findings shows that operating liquidity of firms is also better. Previous studies results shows that there is an contrary relation between financial leverage and dividend policy that's why firms with high leverage distribute less profits than the firms having low leverage.

Profitability is the dependent variable of the study. Ability of the business to generate a profit after paying all expenses is referred to profitability. Profitability indicators are ROA, Net Profit Margin and ROE. In this study ROA will use as a proxy variable of profitability to study the effect of FL and OL on the profitability of the company.

FL and OL are the independent variable of this study. So as to think about the effect of FL on OL I will use ratio as a proxy for the FL and CCC, OCF, Current Ratio, as a proxy variables for the OL. The D/TA is a sign of FL. It describes that the percentage of a total assets that were contributed by creditors. The D/TA ratio has been calculated by dividing company total liabilities over total assets of a company. CCC is the measure to gauge the liquidity that how quickly a firm can change cash on hand into inventory and account payables through selling's and A/R and then back into cash. Current ratio is the measure of short term solvency of the firms that how rapidly a company can change its current assets into cash for the settlement of short term liabilities.

This study tests the impact of leverage on profitability and it is based on numerical data that's why positivism is the best suitable philosophy for this study. Data collection technique of this study is simple because I will take the secondary data of Pakistani Cement firms from the period of 2008 to 17. Financial data of these firms will be collected from the financials of cement firms which are listed in PSX and also from the official websites of firms and from business recorder. For the sake of accuracy and proof of the data I have selected only from those Cement firms which are listed in PSX. There are 24 Cement Corporations that are listed in Pakistan Stock Exchange from which I have selected 18 firms for which financial statements from 2008 to 2017 are available. And for the sake of result firstly this study investigates the impact of FL on OL and later it will investigate the impact of these

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both on the profitability of Pakistani cement firms. For this purpose 3 models developed (model 1, 2 and 3) to check the impact of FL on OL and 3 more models to test the impact of FL and OL on firm's performance.

From the results of models 1, 2, 3 it is clear as the firm becomes more levered, its liquidity rises as well. So, this may refrain from it that the firm that raises debts for use it mostly to finance their current assets and to pay off their current debts, which is aligned with the working capital's conservative approach, that is to finance short term assets with long term loans.

Secondly, combined effects of leverage and operating liquidity on firm performance had to be tested. For this purpose three models named model 4, model 5 and model 6 were utilized and it resulted that performance of the firm was significantly affected by the operating liquidity and financial leverage. ROA was used as dependent variable and financial leverage and operating liquidity were used as independent variables. To support the panel data fixed effects approach, Hausman test results were used. So from these results it can said that both financial leverage and operating liquidity significantly affect firm performance. Financial leverage negatively affects firm performance. The reason can be said as it causes increase in financial cost. Operating liquidity affects firm's performance positively because of the assistance in requirements of huge funds for machinery and to support in day to day operating activities.

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Annexure A

List of data collected Companies of cement sector Listed in PSX

CEMENT FIRMS USED FOR SAMPLE DATA		
SR#	**Symbol**	**Name of firm**
1	ACPL	Attock Cement (Pakistan) Limited
2	BWCL	Bestway Cement Limited
3	CHCC	Cherat Cement Company Limited
4	DGKC	D.G. Khan Cement Company Limited
5	DBCI	Dadabhoy Cement Industries Limited
6	DNCC	Dandot Cement Company Limited
7	DCL	Dewan Cement Limited
8	FCCL	Fauji Cement Company Limited
9	FECTC	Fecto Cement Limited
10	FLYNG	Flying Cement Company Limited
11	GWLC	Gharibwal Cement Limited
12	KOHC	Kohat Cement Limited
13	LUCK	Lucky Cement Limited
14	MLCF	Maple Leaf Cement Factory Limited
15	PIOC	Pioneer Cement Limited
16	POWER	Power Cement Limited
17	THCCL	Thatta Cement Company Limited
18	ZELP	Zeal Pak Cement Factory Limited