

# The Effect of Liquidity And Leverage on Profitability of Select IT Companies

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**ABSTRACT** - The organizations performance is measured on liquidity and capital structure variables. Thus for may finance managers these variables are of at most concern. This paper attempts to understand the relationship between liquidity and profitability and also attempts to examine the impact of financial leverage and liquidity on the performance of the organization. The study is confined to IT companies in general and select five IT firms in particular. The tools used for the study are descriptive statistics, correlation to establish the relationship between liquidity and profitability and regression analysis to understand the impact of leverage on the performance of the firm. This study will help for further study and develop cumulative study in this area.

**KEYWORDS:** Capital structure, financial performance, IT Companies, Leverage, Liquidity, Profitability.

## I. INTRODUCTION

The main objective of any finance manager in the organization is to maximize the shareholders wealth. This objective can be achieved with a right tradeoff between the functions of finance, mainly the investment decision and financing decision.

The growth of any organization can be evidenced based on its debt-equity mix, which is also termed as financial leverage. The use of leverage of the firm decides the capital structure of the firm. Thus, leverage can be understood as the fundamental decision for any organization, to maximize the stakeholders returns and also to have an impact on the ability to deal with the competitors in the industry. Proper use of leverage also incorporates the risk philosophy. For any business it is very important to choose the right mix of debt and equity to achieve optimum capital structure which would result in minimizing the overall cost capital and maximizing the shareholders wealth. Maintaining adequate working capital is always needed for any business to avoid problems like production delays, delay in payments and purchases and unable to exploit favorable market opportunities etc. on the other hand higher liquidity leads to blockage of funds in various forms like inventories, bills receivables etc. thus, in this study an attempt is made to understand the liquidity position of the select IT companies through liquidity ratios.

Organizations performance can be measured based on the growth and its profitability. To analyze the profitability of the select IT companies financial statement analysis is done as it helps the firm to establish the relationship among various components of financial statements.

## II. LITERATURE REVIEW

**Y.V.Reddy and Parab Narayan (2018)** analysed the relationship between liquidity and profitability, financial leverage and profitability and also the study analysed an

effect of financial leverage and liquidity on the financial performance of select pharmaceutical companies for the period of 2006-07 to 2015-16. The study result shows that the liquidity of the companies has significant impact on firm's performance which is effect the ongoing ability to pay financial obligations and effect the firm's capital structure too.

**Dr.J.Michael Sammanasu and Dr.A.Pappurajan (2017)** investigated that the impact of leverage on the profitability of the firms performance. It aims to portray how the earning capacities of the firms are influenced by the fixed operating charges and the fixed financial charges. This study reveals that selected steel companies are considered for investigation and hypothesis are examined with the help of Analysis of Variance (ANOVA) and t-test. The results suggested that the leverage and profitability are related and the leverage is having a significant impact on the profitability of the firms performance.

**Mohammad Alfurqan Dabiri, Rosylin Mohd Yusof and Norazlina Abd Wahab (2017)** analysed that there is a relationship between liquidity and profitability and an effect of liquidity on profitability of five selected Islamic banks in the United Kingdom for the period of 2005-2016. The study reveals that liquidity has negative correlation and significant impact on selected companies' profitability in short and long runs. The study suggests that the apex bank (Bank of England) should guarantee close regulation and monitoring of Islamic banks' potency and level of liquidity in an effort to lighten and reinforce the financial sector of the country's economy.

**Syed Azhar (2015)** studied that the effect of liquidity position and management efficiency on profitability of respective power distribution companies. The study reveals that debtor turnover ratio, collection efficiency

ratio and interest coverage ratio has significant impact and rest of the ratios like quick ratio, absolute liquidity ratio and creditors turnover ratio are showing an insignificant impact on profitability of power distribution companies.

Virani Varsha (2010) analysed the profitable proceedings of the primary Pantaloon India ltd. Five years of Annual reports from Pantaloon Retail India Ltd have been collected. The study concluded that companies have to change its capital structure because degrees of financial leverage and degrees of operating leverage are positively related to earnings per share.

### III. RESEARCH METHODOLOGY

#### Need for the study

There is always an issue with liquidity and leverage variables as how best to combine these elements to improve the firm's financial performance. This is the reason to carry out the current study in finding out the impact of liquidity and leverage on profitability of IT sector companies.

The secondary data which is necessarily required to perform the current research gathered from the authorized sites of IT companies in India. Different financial statements of five IT companies are used for data extraction. These five companies are top performing companies in IT sector. The data used for the purpose of research consisted of five years annual data of the variables used in this study. Data of all the variables belonged to period starting from year 2014 to year 2018 was taken in this study.

#### Objectives of the study

- 1) To know the relationship between liquidity and profitability of select IT companies.
- 2) To know the relationship between leverage and profitability of select IT companies.
- 3) To analyse the impact of financial leverage and liquidity on the profitability of select IT companies.

#### Hypotheses of the study

**H1:** Liquidity has a significant impact on profitability.

**H2:** Leverage has a significant impact on profitability.

### IV. DATA ANALYSIS

Descriptive statistics, correlation and Regression analysis was used as a statistical technique for this research study. The Regression analysis was used to examine the impact of studied independent variable on the dependent variable i.e profitability of firms. For the examination and analysis of the data Statistical Package for the Social Sciences (SPSS) was used.

**Table 1: List of Variables Used in the Study:**

List of Variables Used in the Study		
Variable	Proxy Variable	Measurement
<b>Independent Variables</b>		
Liquidity	Current Ratio (CR)	Current Assets/Current Liabilities
	Quick Ratio (QR)	(Current Assets – Inventories)/Current Liabilities
Leverage	Debt to Equity (D/E) Ratio	Total Liabilities/Total Equity
	Interest Coverage Ratio (ICR)	Earnings Before Interest and Taxes (EBIT)/Interest Expenses
	Debt to Assets (D/A) Ratio	Total Liabilities/Total Assets
<b>Dependent Variables</b>		
Profitability	Return on Assets Ratio (ROA)	Net Income/Average Total Assets
	Return on Equity (ROE)	Net Income/Shareholders Equity

**Table 2: Descriptive Statistics of Liquidity, Leverage and Profitability ratios of select IT Companies**

	CR	QR	D/E	ICR	D/A	ROA	ROE
Mean	3.23	3.22	0.32	384.28	0.23	18.32	24.36
Median	2.86	2.85	0.30	127.18	0.23	15.85	23.66
Standard Deviation	1.04	1.04	0.13	586.52	0.07	7.43	9.54
Skewness	1.53	1.53	0.45	2.25	0.13	0.37	0.21
Observations	25	25	25	25	25	25	25

From the above table 2, it is evident that the return rate measured by ROA and ROE has an average of 18.32 and 24.36. The standard deviation of ICR is higher which means it's highly volatile, while D/A has a lower standard deviation which means it is less volatile. The skewness of all the variables are positive which means they are positively skewed.

**Table 3: Correlation of Liquidity, Leverage and Profitability ratios of select IT Companies**

	CR	QR	D/E	ICR	D/A	ROA	ROE
<b>CR</b>	1						
<b>QR</b>	1	1					
<b>D/E</b>	-0.74	-0.74	1				
<b>ICR</b>	0.68	0.68	-0.52	1			
<b>D/A</b>	-0.76	-0.77	0.99	-0.55	1		
<b>ROA</b>	0.27	0.28	-0.13	0.52	-0.13	1	
<b>ROE</b>	0.05	0.05	0.13	0.36	0.13	0.96	1

From the above table 3, it is observed that liquidity ratios (QR and CR) have positive relation with profits of the firms, whereas leverage ratio (ICR) has positive relation, debt to equity ratio (D/E) and debt to assets ratio (D/A) has negative relation with profits of the firms.

**Table 4: Regression analysis on Liquidity ratios when ROA is taken as dependent variable of select IT Companies**

Regression Statistics	
Multiple R	0.285374
R Square	0.081438
Adjusted R Square	-0.00207
Standard Error	7.434304
Observations	25

**Table 5: Analysis of Variance of Liquidity ratios when ROA is taken as dependent variable of select IT Companies**

ANOVA	df	SS	MS	F	Significance F
Regression	2	107.8009	53.900461	0.975241	0.392819
Residual	22	1215.915	55.268883		
<b>Total</b>	<b>24</b>	<b>1323.716</b>			

It is observed from the above tables 4 & 5 that, R square value is 0.08 i.e., there is 8% variation between the liquidity and profitability (ROA). F value is 0.97 and p value is 0.39 which means it is greater than the 0.05 of level of significance. Therefore, the null hypothesis is accepted so there is no significant impact of liquidity on profitability (ROA).

**Table 6: Regression analysis on Liquidity ratios when ROE is taken as dependent variable of select IT Companies**

Regression Statistics	
Multiple R	0.073748
R Square	0.005439
Adjusted R Square	-0.08498
Standard Error	9.939388
Observations	25

**Table 7: Analysis of Variance of Liquidity ratios when ROE is taken as dependent variable of select IT Companies**

ANOVA	df	SS	MS	F	Significance F
Regression	2	11.88544	5.94272	0.0601542	0.941773656
Residual	22	2173.412	98.79144		
<b>Total</b>	<b>24</b>	<b>2185.297</b>			

It is observed from the above tables 6 & 7 that, R square value is 0.005 i.e., there is 0.5% variation between the liquidity and profitability (ROE). F value is 0.06 and p value is 0.94 which means it is greater than the 0.05 of level of significance. Therefore, the null hypothesis is accepted so there is no significant impact of liquidity on profitability (ROE).

**Table 8: Regression analysis on Leverage ratios when ROA is taken as dependent variable of select IT Companies**

Regression Statistics	
Multiple R	0.570569
R Square	0.325549
Adjusted R Square	0.229199
Standard Error	6.520231
Observations	25

**Table 9: Analysis of Variance of Leverage ratios when ROA is taken as dependent variable of select IT Companies**

ANOVA	Df	SS	MS	F	Significance F
Regression	3	430.9346	143.64487	3.378813	0.037442
Residual	21	892.7817	42.513416		
<b>Total</b>	<b>24</b>	<b>1323.716</b>			

It is observed from the above tables 8 & 9 that, R square value is 0.32 i.e., there is 32% variation between the leverage and profitability (ROA). F value is 3.37 and p value is 0.03 which means it is less than the 0.05 of level of significance. Therefore, the null hypothesis is rejected. So there is a significant impact of leverage on profitability (ROA).

**Table 10: Regression analysis on Leverage ratios when ROE is taken as dependent variable of select IT Companies**

Regression Statistics	
Multiple R	0.535697
R Square	0.286972
Adjusted R Square	0.185111
Standard Error	8.613883
Observations	25

**Table 11: Analysis of Variance of Leverage ratios when ROE is taken as dependent variable of select IT Companies**

ANOVA	df	SS	MS	F	Significance F
Regression	3	627.11	209.03	2.81	0.063942448
Residual	21	1558.17	74.19		
<b>Total</b>	<b>24</b>	<b>2185.29</b>			

It is observed from the above tables 10 & 11 that, R square value is 0.28 i.e., there is 28% variation between the leverage and profitability (ROE). F value is 2.81 and p value is 0.06 which means it is slightly greater than the 0.05 of level of significance. Therefore, the null hypothesis is accepted. So there is no significant impact of leverage on profitability (ROE).

### V. FINDINGS

- 1) Based on correlation for the IT companies, it is found that liquidity (QR & CR) has positive relationship with profitability.
- 2) It is also found that, leverage ratios (D/E & D/A) has negative relation with profitability ratios.
- 3) Based on regression of combined analysis, there is no impact of liquidity on profitability ratios, both with ROE & ROA as dependant variables.
- 4) There is no impact of leverage on profitability ratio when ROE is taken as dependant variable.
- 5) There is an impact of leverage on profitability ratio when ROA is taken as dependant variable.

### VI. CONCLUSION

Results of the study reveal that D/A ratio and D/E ratio are negatively correlated with the ROA of the firm and also the liquidity ratios. However, ICR has positive correlation with profits of the firm and also with the liquidity of the firm. Analysis explain that the liquidity ratios have positive correlation with the profits of the firm. This negative relationship and insignificance of debt to equity ratio and debt to asset ratio with ROA of the sampled

companies shows that an increase in debts might lead to a reduction in the assets utilization potential of the company. This means that IT companies do not assign much value to the debt financing for the growth of their companies.

### REFERENCES

- [1] Y V Reddy and Parab Narayan (2018), “The Impact of Liquidity and Leverage on Profitability: Evidence from India”. The IUP Journal of Accounting Research & Audit Practices, Vol. XVII, No. 1, 2018.
- [2] Dr.J.Michael Sammanasu Dr.A.Pappurajan (2017), “Leverage Analysis and Its Impact On Profitability Of Select Steel Companies Of India Traded In Bombay Stock Exchange (BSE)”. Journal of Advance Management Research, ISSN: 2393-9664, Vol. 5, Issue 3, 2018, pp 83-96.
- [3] Mohammad Alfurqan Dabiri, Rosylin Mohd Yusof and Norazlina Abd Wahab (2017) “Profitability and Liquidity of Islamic Banks in the United Kingdom”. ISSN: 2321-8819, Vol. 5, Issue 4, 2017.
- [4] Azhar, S. 2015. Impact of liquidity and Management Efficiency on profitability: A Empirical Study of Selected Power Distribution Utilities in India. Journal of Entrepreneurship, Business and Economics, ISSN: 2345-4695, 3(1): 31–49.
- [5] Varsha , Virani (2010). Impact of Leverage on Profitability of Pantaloon Retail India Ltd. Advances in Management. Vol. 3, Issue 8, 52-59