

## IMPACT OF FINANCIAL LEVERAGE ON FINANCIAL PERFORMANCE OF SELECTED CEMENT COMPANIES OF INDIA

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Prof. (Dr.) CA. Haresh Kothari\*

### ABSTRACT

*Financial Management basically deals with raising of financial resources and its proper allocation in order to maximize shareholders wealth. For a successful running of an organization fixed and current assets play a crucial role as organization generally invests in these options. A firm's working capital consists of its investments in short-term assets like cash and bank balance, inventories, receivable and short term investments. Therefore, the working capital management mainly refers to the management of all these individual current assets. In this research paper an attempt has been made to study the components of financial leverage and the possible implications of financial leverage on financial performance of selected cement companies of India. The paper also attempts to analyse the correlation between liquidity, profitability and return on investments of selected cement companies. The study is based on secondary data collected from annual reports of selected 5 cement companies for the period 2007-08 to 2016-17. In this paper there is an application of regression analysis to identify the significant impact of financial leverage on the financial performance. Financial leverage is essential as it might have a direct impact on profitability and liquidity.*

**Keywords:** Financial Leverage, Liquidity, Cement Companies, Financial Performance.

### Introduction

Financial leverage is a measure of how much firms use equity and debt to finance its assets. A company can finance its investments by debt and equity. The company may also use preference capital. The rate of interest on debt is fixed irrespective of the company's rate of return on assets. The financial leverage employed by a company is intended to earn more on the fixed charges funds than their costs. As debt increases, financial leverage increases. It has been seen in different studies that financial leverage has effect on corporate performance of quoted pharmaceutical companies in Nigeria. The primary motive of a company in using financial leverage is to magnify the shareholders' return under favourable economic conditions. The role of financial leverage in magnifying the return of the shareholders' is based on the assumptions that the fixed-charges funds (such as the loan from financial institutions and other sources or debentures) can be obtained at a cost lower than the firm's rate of return on net assets (RONA or ROI). Damouri, et al (2013) states that leverage ratios contribute in measuring the risk of using equity costs. They adds that there are various measures known for the capital structure among which the most important are book value based measures, market value based measures and semi- market value based measures (adjusted market value). Financial leverage affects profit after tax or earnings per share. The combined effect of two leverages can be quite significant for the earnings available to ordinary shareholders (Pandey, 2010).

### Objectives of the Study

- To study relationship between financial leverage and Financial Performance
- To study the impact of financial leverage on financial performance of selected cement companies

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\* Vice Chancellor, KK Modi University, Chhattisgarh, India.

## Literature Review

**Akhtar, et al (2012)** examines the relationship between financial leverage and financial performance, evidence from fuel and energy sector of Pakistan. The result shows that there is a general perception that a relationship exists between the financial leverage and the performance of the companies' i.e most of the financial performance indicators have positive relationship with debt to equity ratio while the gearing ratio indicates negative relationships with the leverage indicators. The result adds that gearing ratio may differ from that of debt to equity ratio while debt equity ratio takes into account the long term debt.

**Rehman (2013)** studies the relationship between financial leverage and financial performance in listed sugar companies of Pakistan. The results shows positive relationship of debt equity ratio with return on asset and sales growth, and negative relationship of debt equity ratio with earning per share, net profit margin and return on equity. This negative relationship between debt equity ratio and earnings per share (EPS) support the fact that as debt increases, the interest payment will also rises, so EPS will decrease.

**Akinmulegun (2012)** examines the effect of financial leverage on selected indicators of corporate performance in Nigeria. This shows that financial leverage significantly affects corporate performance in Nigeria.

**Rajin (2012)** investigates the influence of financial leverage on shareholders return and market capitalization, evidence of telecommunication sector companies in India. He find out that the nature of relationship and the state of influence of the financial leverage on shareholder's return and market capitalization individually indicates positive relationship between financial leverage and shareholder return but negative relationship between financial leverage and market capitalization.

**Ujah and Brusa (2013)** suggested that financial leverage and cash flow impact the degrees to which firms manage their earnings.

**Obradovich and Gill (2013)** indicates that larger board size negatively impacts the value of American firms and CEO duality, audit committee, financial leverage, firm size, return on assets and insider holdings positively impact the value of American firms.

**Nasrollah et al (2013)** studies effect of financial leverage and investment diversification on income- increasing earning management. The results show that financial leverage coefficient is meaningful at level of 95% of confidence, consequently, it can be concluded that financial leverage has an influence on income-increasing earnings management.

**Nazir and Saita (2013)** studies financial leverage and agency cost, an empirical evidence of Pakistan. The study found out that general and admin expense ratio to sales ratio is negatively related to all four leverage ratios.

**Taani (2012)** investigates impact of working capital management policy and financial leverage on financial performance. The study shows that firm's working capital management policy, financial leverage and firm size have significant relation to net income and also no significant impact on return on equity (ROE) and return on Assets (ROA).

**Akbarian (2013)** examines the investigation effect of financial leverage and environment risk on performance firms of listed companies in Tehran stock exchange. The result shows that there is a negative relation between financial leverage and cash flow per share. It also indicates that financial leverage, market risk and economic risk with return of equity have positive significant relationship.

## Research Methodology

### Sample Size

For this study, researcher has selected 5 cement companies to study the relation between financial leverage and financial performance

### Sources of Data

Secondary sources of data has been used for this study. Annual reports of cement companies has been analysed.

### Research Period

Last 10 years' (2007-08 to 2016-17) annual reports of cement companies has been collected

### Data Analysis Techniques

Regression techniques has been used

**Data Analysis**

Ratio	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Operating Profit Margin(%)	17.99	17.41	15.80	15.42	21.30	19.24	22.22	27.65	27.02	30.09
Profit Before Interest And Tax Margin(%)	12.06	11.45	10.54	9.31	15.16	13.22	16.33	22.39	22.01	25.25
Gross Profit Margin(%)	12.25	11.68	10.79	9.52	15.43	13.43	16.57	22.72	22.37	26.38
Net Profit Margin(%)	7.93	7.45	8.06	7.41	9.24	9.92	11.82	14.77	16.03	19.56
Current Ratio	0.68	0.79	0.76	0.76	0.70	0.78	0.76	0.70	0.82	0.78
Quick Ratio	0.51	0.66	0.59	0.59	0.54	0.58	0.57	0.51	0.61	0.59
Interest Cover	9.23	8.30	10.49	11.85	13.38	13.37	14.52	26.85	24.94	19.68
Financial Charges Coverage Ratio	14.14	12.59	14.20	16.74	17.17	17.54	18.31	31.22	28.87	21.73
Long Term Debt Equity Ratio	0.55	0.69	0.91	0.86	0.71	0.58	0.56	0.58	0.55	0.45
Debt Equity Ratio	0.84	1.02	1.24	1.29	0.78	0.76	0.74	0.75	0.73	0.58
Inventory Turnover Ratio	9.56	9.69	8.96	8.54	10.81	13.83	15.16	17.93	20.90	17.73
Asset Turnover Ratio	1.07	1.04	1.07	1.12	1.10	0.95	0.96	1.06	1.04	1.06

**Regression Analysis**• **Debt Equity Ratio vs Operating Profit Margin (%)**

Summary Output	
<b>Regression Statistics</b>	
Multiple R	0.8128
R Square	0.66065
Adjusted R Square	0.61823
Standard Error	3.23028
Observations	10

**ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	162.515	162.515	15.5745	0.00426
Residual	8	83.4774	10.4347		
Total	9	245.992			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	37.2223	4.13384	9.00428	1.8E-05	27.6896	46.7549
X Variable 1	-18.116	4.59047	-3.9465	0.00426	-28.702	-7.5304

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs operating profit margin of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs operating profit margin of selected cement companies

Multiple R = 0.812, which indicates that there is linear relationship between Debt equity ratio vs operating profit margin of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.004 which is less than specified  $\alpha$  of 0.05. So null hypothesis is rejected and it concluded that there is linear relationship between Debt equity ratio vs operating profit margin of selected cement companies.

• **Debt Equity Ratio vs Profit Before Interest and Tax Margin (%)**

Summary Output	
<b>Regression Statistics</b>	
Multiple R	0.78894
R Square	0.62243
Adjusted R Square	0.57523
Standard Error	3.64307
Observations	10

**ANOVA**

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	175.032	175.032	13.1881	0.00667
Residual	8	106.175	13.2719		
Total	9	281.207			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	32.1778	4.6621	6.902	0.00012	21.4269	42.9286
X Variable 1	-18.801	5.17707	-3.6315	0.00667	-30.739	-6.8624

### Interpretation

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs profit before interest and tax margin of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs profit before interest and tax margin of selected cement companies

Multiple R = 0.788, which indicates that there is linear relationship between Debt equity ratio vs profit before interest and tax margin of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.006 which is less than specified  $\alpha$  of 0.05. So null hypothesis is rejected and it concluded that there is linear relationship between Debt equity ratio vs profit before interest and tax margin of selected cement companies

- **Debt Equity Ratio vs Gross Profit Margin (%)**

<b>Summary Output</b>	
<b>Regression Statistics</b>	
Multiple R	0.78499
R Square	0.6162
Adjusted R Square	0.56823
Standard Error	3.8091
Observations	10

<b>ANOVA</b>					
	<b>Df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	186.36	186.36	12.8443	0.00715
Residual	8	116.074	14.5092		
Total	9	302.434			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	33.0407	4.87457	6.77819	0.00014	21.8	44.2815
X Variable 1	-19.4	5.41302	-3.5839	0.00715	-31.882	-6.9172

### Interpretation

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs gross profit margin of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs gross profit margin of selected cement companies

Multiple R = 0.784, which indicates that there is linear relationship between Debt equity ratio vs gross profit margin of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.007 which is less than specified  $\alpha$  of 0.05. So null hypothesis is rejected and it concluded that there is linear relationship between Debt equity ratio vs gross profit margin of selected cement companies

- **Debt Equity Ratio vs Net Profit Margin (%)**

<b>Summary Output</b>	
<b>Regression Statistics</b>	
Multiple R	0.7273
R Square	0.52897
Adjusted R Square	0.47009
Standard Error	3.07774
Observations	10

<b>ANOVA</b>					
	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	85.0998	85.0998	8.9839	0.01714
Residual	8	75.7798	9.47248		
Total	9	160.88			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
<i>Intercept</i>	22.6584	3.93864	5.75286	0.00043	13.5759	31.7409
X Variable 1	-13.109	4.3737	-2.9973	0.01714	-23.195	-3.0236

**Interpretation**

**H<sub>0</sub>**: There is no linear relationship between Debt equity ratio vs net profit margin of selected cement companies

**H<sub>1</sub>**: There is linear relationship between Debt equity ratio vs net profit margin of selected cement companies

Multiple R = 0.727, which indicates that there is linear relationship between Debt equity ratio vs net profit margin of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.017 which is less than specified  $\alpha$  of 0.05. So null hypothesis is rejected and it concluded that there is linear relationship between Debt equity ratio vs net profit margin of selected cement companies

• **Debt Equity Ratio vs Current Ratio**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.01224
R Square	0.00015
Adjusted R Square	-0.1248
Standard Error	0.04941
Observations	10

<b>ANOVA</b>					
	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	2.9E-06	2.9E-06	0.0012	0.97323
Residual	8	0.01953	0.00244		
Total	9	0.01953			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	0.74968	0.06323	11.8569	2.3E-06	0.60388	0.89548
X Variable 1	0.00243	0.07021	0.03463	0.97323	-0.1595	0.16434

**Interpretation**

**H<sub>0</sub>**: There is no linear relationship between Debt equity ratio vs current ratio of selected cement companies

**H<sub>1</sub>**: There is linear relationship between Debt equity ratio vs current ratio of selected cement companies

Multiple R = 0.012, which indicates that there is no linear relationship between Debt equity ratio vs current ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.973 which is higher than specified  $\alpha$  of 0.05. So null hypothesis is accepted and it concluded that there is no linear relationship between Debt equity ratio vs current ratio of selected cement companies

• **Debt Equity Ratio vs Quick Ratio**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.32419
R Square	0.1051
Adjusted R Square	-0.0068
Standard Error	0.04608
Observations	10

**ANOVA**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	0.002	0.002	0.93952	0.36079
Residual	8	0.01699	0.00212		
Total	9	0.01898			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	0.51921	0.05897	8.80416	2.2E-05	0.38322	0.6552
X Variable 1	0.06348	0.06549	0.96929	0.36079	-0.0875	0.21449

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs quick ratio of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs quick ratio of selected cement companies

Multiple R = 0.324, which indicates that there is no linear relationship between Debt equity ratio vs quick ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.360 which is higher than specified  $\alpha$  of 0.05. So null hypothesis is accepted and it concluded that there is no linear relationship between Debt equity ratio vs quick ratio of selected cement companies

- **Debt Equity Ratio vs Interest Cover**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.555122
R Square	0.30816
Adjusted R Square	0.22168
Standard Error	5.692004
Observations	10

**ANOVA**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	115.4492	115.4492	3.563368	0.095766
Residual	8	259.1912	32.39891		
Total	9	374.6405			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	28.5852	7.284156	3.924298	0.004392	11.7879	45.38249
X Variable 1	-15.26908	8.08877	-1.887688	0.095766	-33.92181	3.383659

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs interest cover ratio of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs interest cover ratio of selected cement companies

Multiple R = 0.555, which indicates that there is no linear relationship between Debt equity ratio vs interest cover ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.095 which is higher than specified  $\alpha$  of 0.05. So null hypothesis is accepted and it concluded that there is no linear relationship between Debt equity ratio vs interest cover ratio of selected cement companies

- **Debt Equity Ratio vs Financial Charges Coverage Ratio**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.508705
R Square	0.258781
Adjusted R Square	0.166129
Standard Error	5.712994
Observations	10

**ANOVA**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	91.15984	91.15984	2.793032	0.133219
Residual	8	261.1064	32.63831		
Total	9	352.2663			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	31.08953	7.311018	4.252421	0.00279	14.23029	47.94876
X Variable 1	-13.5681	8.118599	-1.671237	0.133219	-32.28962	5.153422

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs financial charges coverage ratio of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs financial charges coverage ratio of selected cement companies

Multiple R = 0.508, which indicates that there is no linear relationship between Debt equity ratio vs financial charges coverage ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.133 which is higher than specified  $\alpha$  of 0.05. So null hypothesis is accepted and it concluded that there is no linear relationship between Debt equity ratio vs financial charges coverage ratio of selected cement companies

- Debt Equity Ratio vs Long Term Debt Equity Ratio**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.933063
R Square	0.870606
Adjusted R Square	0.854431
Standard Error	0.056129
Observations	10

**ANOVA**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	0.169579	0.169579	53.82651	8.1E-05
Residual	8	0.025204	0.00315		
Total	9	0.194783			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	0.132322	0.071829	1.842176	0.102702	-0.033316	0.297961
X Variable 1	0.585199	0.079764	7.336655	8.1E-05	0.401263	0.769134

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs long term debt equity ratio of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs long term debt equity ratio of selected cement companies

Multiple R = 0.933, which indicates that there is linear relationship between Debt equity ratio vs long term debt equity ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 8.1E-05 which is less than specified  $\alpha$  of 0.05. So null hypothesis is rejected and it concluded that there is linear relationship between Debt equity ratio vs long term debt equity ratio of selected cement companies

- Debt Equity Ratio vs Inventory Turnover Ratio**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.748038
R Square	0.559561
Adjusted R Square	0.504506
Standard Error	3.123283
Observations	10

**ANOVA**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	99.14562	99.14562	10.16368	0.012841
Residual	8	78.03917	9.754897		
Total	9	177.1848			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	25.65762	3.99692	6.419349	0.000205	16.44071	34.87454
X Variable 1	-14.14992	4.438422	-3.188052	0.012841	-24.38494	-3.914902

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs inventory turnover ratio of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs inventory turnover ratio of selected cement companies

Multiple R = 0.748, which indicates that there is linear relationship between Debt equity ratio vs inventory turnover ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.01 which is less than specified  $\alpha$  of 0.05. So null hypothesis is rejected and it concluded that there is linear relationship between Debt equity ratio vs inventory turnover ratio of selected cement companies.

- Debt Equity Ratio vs Asset Turnover Ratio**

<b>Summary Output</b>	
<i>Regression Statistics</i>	
Multiple R	0.449655
R Square	0.20219
Adjusted R Square	0.102464
Standard Error	0.051698
Observations	10

**ANOVA**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>
Regression	1	0.005419	0.005419	2.027448	0.192292
Residual	8	0.021381	0.002673		
Total	9	0.0268			

	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95%</b>	<b>Upper 95%</b>
Intercept	0.954719	0.066159	14.43077	5.2E-07	0.802157	1.107281
X Variable 1	0.104608	0.073467	1.423885	0.192292	-0.064806	0.274022

**Interpretation**

**H<sub>0</sub>:** There is no linear relationship between Debt equity ratio vs assets turnover ratio of selected cement companies

**H<sub>1</sub>:** There is linear relationship between Debt equity ratio vs assets turnover ratio of selected cement companies

Multiple R = 0.449, which indicates that there is no linear relationship between Debt equity ratio vs assets turnover ratio of selected cement companies.

From the ANOVA table, it can be seen that p-value 0.19 which is higher than specified  $\alpha$  of 0.05. So null hypothesis is accepted and it concluded that there is no linear relationship between Debt equity ratio vs assets turnover ratio of selected cement companies

**Conclusion**

Based on the data analysis it can be concluded that there is linear relationship between Debt equity ratio vs operating profit margin of selected cement companies, there is linear relationship between Debt equity ratio vs profit before interest and tax margin of selected cement companies, there is linear relationship between Debt equity ratio vs gross profit margin of selected cement companies, there is



linear relationship between Debt equity ratio vs net profit margin of selected cement companies, there is no linear relationship between Debt equity ratio vs current ratio of selected cement companies, there is no linear relationship between Debt equity ratio vs quick ratio of selected cement companies, there is no linear relationship between Debt equity ratio vs interest cover ratio of selected cement companies, there is no linear relationship between Debt equity ratio vs financial charges coverage ratio of selected cement companies, there is linear relationship between Debt equity ratio vs long term debt equity ratio of selected cement companies, there is linear relationship between Debt equity ratio vs inventory turnover ratio of selected cement companies, there is no linear relationship between Debt equity ratio vs assets turnover ratio of selected cement companies

### References

- 1 Akbarian, S (2013). The investigation effect of financial leverage and Environment Risk on Performance firms of listed companies in tehran Stock Exchange 8(3): 249 - 255.
- 2 Akhtar, S; Javed, B; Maryam, A and Sadia, H (2012). Relationship between financial leverage and financial performance: Eviden ce from fuel and energy sector of Pakistan European Journal of Business and Management 4(11): 7 - 17.
- 3 Akinmulegun, S.O (2012). The effect of financial leverage on corporate performance of some selected companies in Nigeria Canadian Social Science 8(1): 85 - 91.
- 4 Aloccock, J; Baum, A; Colley, N and Steiner, E (2013). The role of financial leverage in the performance of private equity real estate funds The Journal of portfolio management: 99 - 110.
- 5 Berger, A and Bonaccorsi, P.E (2006). Capital Structure and firm performance: A new approach to testing agency theory and an application to the banking industry Journal of Banking and Finance (30): 1065 - 1102.
- 6 Damouri, D; Khanagha, J.B and Kaffash, M (2013). The relationship between changes in the financial leverage and the values of the Tehran listed firms.
- 7 Deloof, M (2003). Does working Capital Management affect Profitability of Belgian firms? Journal of Business Finance and Accountancy 30(3) and (4).
- 8 Ekwe, M.C and Duru, A.N (2012). Liquidity Management and Corporate profitability in Nigeria ESUT Journal of Accountancy 3(1): 22 - 28.
- 9 Emekekwe, P.E (2008). Corporate Financial Management. 5th Revised ed; Kinshasha: African Bureau of Educational Sciences.
- 10 Enekwe, C.I (2012). Financial ratio Analysis as a planning tool for corporate profitability: A study of selected qu oted pharmaceutical companies in Nigeria Unpublished M.Sc dissertation Department of Accountancy ESUT Enugu.
- 11 Enuju, Y and Soocheong, J (2005). The effect of financial leverage on profitability and Risk of Restaurant firms Journal of Hospitality Financial Management 13(1): 1 - 18.
- 12 Ezeamama, M.C (2010). Fundamentals of Financial Management: A practical guide. Enugu: Ema press Ltd.
- 13 Falope, O and Ajilore, O.T (2009). Working Capital management and corporate profitability: Evidence from panel data analysis of selected quoted firms in Nigeria Research Journal of Business Management 3(3): 73 - 84.
- 14 Houang, G and Song, F.S (2006). The Determinants of Capital structure: Evidence from China China Economic Review 14: 14 -36.
- 15 Jelinek, K (2007). The effect of leverage increases on earnings management Journal of Business and Economic Studies 13: 24 - 46.
- 16 Karaduman, H.A ; Akbas, H.E; Caliskan, A.O and Durers (2011). The relationship between working capital management and profitability: Evidence from an emerging market International Research Journal of Finance and Economics 62: 61 - 67.
- 17 Koutsoyianis, A (2003). Theory of Econometrics. 2nd ed; London: Palmgrave Publishers.
- 18 Lazaridis, I and Tryfonidis, D (2006). Relationship between working capital management and profitability of listed companies in the Athens Stock Exchange Journal of Financial Management and Analysis 19(5): 26 - 35.

- 19 Nasrollah, T, Mohammad, A.O and Seyed, H.S.E (2013). Effect of financial leverage and investment diversification on income -increasing Earnings management Middle-East Journal of Scientific Research 16(6): 836 - 844.
- 20 Nazir, M.S and Saita, H.K (2013). Financial leverage and Agency Cost: An Empirical evidence of Pakistan International Journal of Innovative and Applied Finance 19: 1 - 16.
- 21 Obradovich, J and Gill, A (2013). The impact of Corporate Governance and financial leverage on the value of American firms' Faculty Publications and Presentations. Paper 25.
- 22 Onwumere, J.U.J (2009). Business and Economic Research Methods. 2nd ed; Enugu: Vougasen Limited.
- 23 Pandey, I.M (2010). Financial Management. 10th ed; New Delhi: Vikas publishing House PVT Ltd.
- 24 Rajin, S (2012). Impact of Financial Leverage on Shareholders returns and market Capitalization: Empirical evidence of telecommunication sector Companies India International Journal of Reasearch in IT, Management and Engineering 2(12).
- 25 Rehman, S.S (2013). Relationship between financial leverage and financial performance: Empirical Evidence of listed sugar companies of Pakistan Global Journal of management and Business Research finance 13(8): 33 - 40.
- 26 Shin, H and Soenen, L (2000). Liquidity management on profitability is there room for Both? AFP Exchange 20(2): 46 - 49.
- 27 Singh, J.P and Pandey, S (2008). Impact of working Capital management in the profitability of Hindalco industries Limited The IUP Journal of financial Economics 6(4): 62 - 72.
- 28 Taani, K (2012). Impact of working capital management policy and financial leverage on financial performance: Evidence from Amman Stock Exchange listed companies International Journal of management sciences and Business Research 1 (8): 10 - 17.
- 29 Ugwuanyi, W (2004). Introduction to financial Analysis and Project Evaluation. Lagos: Johnken and willy Publications Nig. Ltd.
- 30 Ujah, U and Brusa, O. (2012). The effect of financial leverage and cash flow volatility on Earnings management Texas A & M International University.

