

AN ANALYSIS OF THE RELATIONSHIP BETWEEN NET PROFIT AND OWNER'S EQUITY OF SELECTED CEMENT COMPANIES IN INDIA

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Abstract

Capital structure decision is the major one since the profitability of a firm is directly affected by such decision. The successful selection and use of capital is one of the key elements of the firms' financial strategy. Hence, proper care and attention need to be given while determining equity in capital structure decision. The purpose of this study is to investigate the relationship between net profit and owner's equity of 10 listed Indian cement companies over the past 5 years period from 2011 to 2016. The data has been analyzed through using descriptive statistics and correlation analysis to find out the association between the variables. Results of the analysis show that there is a positive as well as negative association between net profit and owner's among them.

Keywords: Capital Structure, Owner's Equity, Profit.

Introduction

The relationship between net income and owner's equity is through retained earnings, which is a balance sheet account that accumulates net income. Proper and efficient capital structure decision has an advantage of profit and wealth maximization and minimization of cost of capital. Many factors influence on capital structure of firm. They are collateral value of assets, non debt tax shields, growth, uniqueness, industry classification, size of the firm, volatility, profitability and so on. Owner's equity is the difference between the company's assets and liabilities. It is the owner's

share of the proceeds if you were to liquidate the company today.

Owner's equity is the sum of the owner's contributions to his company and retained earnings, minus cash withdrawals. The corresponding term for corporations is "stockholders' equity," which is the sum of the proceeds from issuing stock and retained earnings. Therefore, owner's equity rises when a company generates a profit and retains part of it after paying dividends. Losses lead to lower owner's equity or even negative owner's equity. The owner could put in additional cash to continue operations, sell off surplus assets to



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raise cash or liquidate all assets and shut down the company. The owner's equity is usually a company's book value. The market value could be higher or lower than this book value. The market value is higher when investors are optimistic about a company's prospects for growing revenues and net income. The market value is lower when weak economic and industry fundamentals lead to expectations of flat or lower net income.

The more money a business takes in, the more money its owners are likely to make. A company's net income therefore plays a significant role in determining owner's equity.

How net income affects owner's equity?

Net income contributes to a company's assets and can therefore affect the book value, or owner's equity. When a company generates a profit and retains a portion of that profit after subtracting all of its costs, the owner's equity generally rises. On the flip side, if a company generates a profit but its costs of doing business exceed that profit, then the owner's equity generally decreases.

However, net income is only one factor that can affect owner's equity in a company. Owner's equity can also increase if the owner of a business invests more money into the business. Similarly, it can decrease if the owner takes money out of the business.

In a typical corporation, stockholders' equity has two main elements: paid-in capital and retained earnings. Paid-in capital is simply the money the company has collected from selling stock. It's what stockholders have "paid in" to the company. Retained earnings are all the profits that the company has reinvested over the years. ("Earnings" is just another name for profits). Most corporations aren't constantly selling stock

to the public, so it's common for the total amount of paid-in capital to go unchanged over long periods. But retained earnings are regularly in flux, because they're directly affected by net income.

Optimal capital structure which maximizes the shareholders' wealth with best combination of debt and equity mix by minimizing the firms cost of capital .to increase the level of activity in the company. They were to raise the debt amount, but it may create the financial risk in the organization. Capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies and also because of the impact such a decision has on an organization's ability to deal with its competitive environment. Optimal capital structure choice can be influenced by factors such as growth, cash flow, size, etc... in attaining an optimal capital structure.

Objective of the study

There are not many studies on the relationship between net profit and owner's equity.

The study aims to investigate the comparatively under-researched relationship between net profit and owner's equity in an emerging market.

Research Methodology

The study includes only secondary sources of information i.e., from financial reports of cement company through moneycontrol.com. Based on market capitalization top 10 listed companies were selected in BSE and NSE Indian stock markets. Here the study uses convenience sampling. Because out of 27 companies, only top 10 companies financial reports are available for 5

years. In order to test the relationship Karl-Pearson's correlation is used, Companies are: Ultra tech cement, Shree cement, Ambuja cement, ACC, Ramco Cement, prism cement, J.K. Cement, J.K. Laxmi Cement, Orient cement and OCL India.

Data Analysis and Findings

Correlation (r) is used to see the relationship between net profit and owner's equity.

X is owners' equity and Y is net profit

SUMMARY OF CORRELATION COMPUTATION TABLE

Company Name	Average owners' Equity	Average Net Profit	Correlation (r)
Ultra Tech Cement	2287.148	16957.18	-0.70769
Shree Cement	658.116	5057.508	-0.38937
Ambuja Cement	1224.882	9353.98	-0.24398
ACC	1146.124	7815.712	-0.85001
Ramco Cement	345.414	2528.208	-0.362106
Prism	-29.616	1050.032	0.25926
J K Cement	154.838	1578.13	-0.11137
J K Laxmi Cement	95.88	1280.47	-0.49247
Orient Cement	103.728	715.266	-0.683609
OCL India	127.212	1130.59	0.859036

The above table says that in ultra tech cement and OCL India there is a positive relationship between owner's equity and net profit and rest of 8 companies are negatively correlated.

Summary and Conclusion

This study investigated the interrelation between net profit and owner's equity using correlation. Firms selected for the study had to have maintained their identity and reported their annual accounts without any significant gaps for the financial years 2011-12 to 2015-16. There were 10 cement firms selected as a sample for this study. Increase in equity capital will create less riskiness in cement companies. This study

suggests that there is a correlation between net profit and equity capital. But the level of correlation is very less in an average of Indian cement industry. Hence fixation of owner's equity plays a vital role in capital structure decision for making profit.

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Appendix

Ultratech Cement

Year	X (Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dxdy
2011-12	2174.65	20736.1	-112.5	3778.91	12655.8	1.4E+07	-425119
2012-13	2014.74	18857.7	-272.41	1900.5	74206.1	3611885	-517710
2013-14	2144.73	17097.5	-142.42	140.326	20282.9	19691.4	-19985
2014-15	2655.43	15234.8	368.282	-1722.4	135632	2966538	-634316
2015-16	2446.19	12859.8	159.042	-4097.4	25294.4	1.7E+07	-651653
	11435.7	84785.9			268071	3.8E+07	-2E+06
Mean	2287.148	16957.2					
r	-0.70769						

Shree Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dxdy
2011-12	454.54	6180.22	-203.58	1122.71	41443.2	1260482	-228557
2012-13	426.33	5276.4	-231.79	218.892	53724.8	47913.71	-50736.1
2013-14	787.24	5276.4	129.124	218.892	16673	47913.71	28264.2
2014-15	1003.97	4710.87	345.854	-346.64	119615	120157.9	-119886
2015-16	618.5	3843.65	-39.616	-1213.9	1569.43	1473451	48088.2
	3290.58	25287.54			233025	2949919	-322827
Mean	658.116	5057.508					
r	-0.38937						

Ambuja Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dxdy
2011-12	807.56	10306.87	-417.32	952.89	174158	907999	-397662
2012-13	1496.36	10103.33	271.478	749.35	73700.3	561525	203432
2013-14	1294.57	9485.54	69.688	131.56	4856.42	17308	9168.15
2014-15	1297.06	8805.06	72.178	-548.92	5209.66	301313	-39620
2015-16	1228.86	8069.1	3.978	-1284.9	15.8245	1650917	-5111.3
	6124.41	46769.9			257940	3439063	-229793
Mean	1224.882	9353.98					
r	-0.24398						

ACC Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dxdy
2011-12	744.74	8443.04	-401.38	627.328	161109	393540	-251799
2012-13	1168.29	8235.61	22.166	419.898	491.332	176314	9307.46
2013-14	1095.76	7824.84	-50.364	9.128	2536.53	83.3204	-459.72
2014-15	1396.57	7382.8	250.446	-432.91	62723.2	187413	-108421
2015-16	1325.26	7192.27	179.136	-623.44	32089.7	388680	-111681
	5730.62	39078.6			258950	1146031	-463054
Mean	1146.124	7815.71					
r	-0.85001						

Ramco Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	Dxdy
2011-12	558.26	3092.63	212.846	564.422	45303.4	318572	120135
2012-13	242.35	2645.19	-103.06	116.982	10622.2	13684.8	-12057
2013-14	137.7	2482.08	-207.71	-46.128	43145.1	2127.79	9581.43
2014-15	403.65	2370.76	58.236	-157.45	3391.43	24789.9	-9169.1
2015-16	385.11	2050.38	39.696	-477.83	1575.77	228320	-18968
	1727.07	12641			104038	587494	89522.8
Mean	345.414	2528.21					
r	-0.362106						

Prism Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dxdy
2011-12	8.36	988.45	37.976	-61.582	1442.18	3792.34	-2338.6
2012-13	14.7	1015.37	44.316	-34.662	1963.91	1201.45	-1536.1
2013-14	-81.65	1008.06	-52.034	-41.972	2707.54	1761.65	2183.97
2014-15	-59.48	1089.71	-29.864	39.678	891.859	1574.34	-1184.9
2015-16	-30.01	1148.57	-0.394	98.538	0.15524	9709.74	-38.824
	-148.08	5250.16			7005.64	18039.5	-2914.5
Mean	-29.616	1050.03					
r	0.25926						

JK Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	Dxdy
2011-12	101.54	1714.41	-53.298	136.282	2840.68	18572.8	-7263.6
2012-13	156.92	1646.54	2.082	68.412	4.33472	4680.2	142.434
2013-14	97.03	1543.39	-57.808	-34.738	3341.77	1206.73	2008.13
2014-15	233.55	1697.39	78.712	119.262	6195.58	14223.4	9387.35
2015-16	185.15	1288.91	30.312	-289.22	918.817	83647.1	-8766.8
	774.19	7890.64			13301.2	122330	-4492.4
Mean	154.838	1578.13					
r	-0.11137						

JK Laxmi Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dxdy
2011-12	6.28	1333.44	-89.6	52.97	8028.16	2805.82	-4746.1
2012-13	95.6	1330.7	-0.28	50.23	0.0784	2523.05	-14.064
2013-14	93	1303.22	-2.88	22.75	8.2944	517.563	-65.52
2014-15	175.74	1259.8	79.86	-20.67	6377.62	427.249	-1650.7
2015-16	108.78	1175.19	12.9	-105.28	166.41	11083.9	-1358.1
	479.4	6402.35			14580.6	17357.6	-7834.5
Mean	95.88	1280.47					
r	-0.49247						

Orient Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dx dy
2011-12	62.24	1016.3	-41.488	301.034	1721.25	90621.5	-12489
2012-13	194.78	975.54	91.052	260.274	8290.47	67742.6	23698.5
2013-14	101.02	828.76	-2.708	113.494	7.33326	12880.9	-307.34
2014-15	161.67	756.75	57.942	41.484	3357.28	1720.92	2403.67
2015-16	-1.07	-1.02	-104.8	-716.29	10982.6	513066	75065.3
	518.64	3576.33			24359	686032	88370.8
Mean	103.728	715.266					
r	-0.683609						

OCL India Cement

Year	X(Owners' equity)	Y(Net profit)	Dx	Dy	dx ²	dy ²	dx dy
2011-12	236.29	1405.11	109.078	274.52	11898	75361.2	29944.1
2012-13	113.69	1196.21	-13.522	65.62	182.845	4305.98	-887.31
2013-14	97.88	1109.92	-29.332	-20.67	860.366	427.249	606.292
2014-15	156.39	1038.67	29.178	-91.92	851.356	8449.29	-2682
2015-16	31.81	903.04	-95.402	-227.55	9101.54	51779	21708.7
	636.06	5652.95			22894.1	140323	48689.8
Mean	127.212	1130.59					
r	0.859036						