A Study on Financial Performance of Cement Industry with Special Reference to Ambuja Cement Limited

Santu Charan Das*

Department of Commerce, Mahishadal Raj College, W.B. 721628, India

***E-mail**: santucdas1982@gmail.com

Abstract: *India's cement industry plays a vital role in economy.This industry provides employment to more than a million of people directly and indirectly.Cement Industry mainly engaged in housing, infrastructure, commercial and industrial. Indian cement industry is the largest producer of cement is the world just behind china.*

The study mainly deals with financial performance of Ambuja Cement Limited. The primary objective is to study the financial performance and the secondary objectives are to evaluate the profitability and liquidity position as well as operational position of the industry. The researcher has used only secondary data. Ratio analysis, paired correlation and regression analysis have been used for analysing the data. The results indicate that the liquidity position of the company is satisfactory. The researcher does not find out any significant relationship between liquidity and profitability.

Keywords*:* Liquidity, Profitability, Paired Correlation and Regression Analysis

1. Introduction:

Cement is a very essential commodity which is manufactured by local plants. There are twenty companies in cement industry. India is a developing country so there is a large scope to expand the cement industry. Development is synonymous with industrialization and industry mainly concentrating to the basic goods of steel and machinery.

Liquidity has an important relationship with profitability. If we have enough liquid resources then we may be able to get benefit of cash discount on purchases and as well as increasing profits. If we cannot pay the creditors in the given period then we have to pay interest. Thus, shortage of liquid resources will show the low cash discount and payment of interest. Both the losses will certainly decrease profits. Stock is also an important factor because if we are not able to keep sufficient stock due to shortage of liquid resources, then the production cycle may not be continued and that will result in heavy losses. Financial analysis is a depth study of a firm's financial position (i.e., capital, assets and liabilities of a firm at a point of time) and its financial performance (i.e., income, profitability, solvency, earnings per share, dividend payout etc.,) over a period.

2. **Objectives of the study:**

The study was conducted to achieve the following objectives-

2(a) Primary Objective:

Study the short term financial performance of Cement Industry with special reference to Ambuja Cement Ltd.

2(b) Secondary Objectives:

To examine the profitability of the company over the study period

To test the correlation between liquidity and profitability

3. Review of Literature:

Dhivya, Shobanapriya, Devika, Kararthika and Bakiyaraj (2017) discussed in their study about A study on financial performance of cement industry with special reference to ACC Ltd. They have used for secondary data for five years (2011-2015).They have also used some tools such as ratio analysis and trend analysis for analysing the data. The study shows that the company's liquidity position and solvency in comfortable position.

Prajapati (2019) in his study "Financial performance analysis of selected cement companies in India" shows the financial performance of selected companies. The researcher used secondary data for 2014-15 to 2018-19.The researcher has used some ratio analysis which mainly deals with liquidity position of the company. Researcher's result shows that the financial positions of the select companies are satisfactory.

Soni (2018) discussed in his study about the financial performance of JK cement of India using some ratio analysis techniques. Their study showed that the current ratio and quick ratio were below the standard .Inventory turnover ratio fluctuated in research periods,

4. Research Methodology:

Research methodology gives the direction about the methods for conducting the research systematically and scientifically.The primary source of the data is "Money control" other than the data is collected from companies published journal and annual report of the companies.The data has been collected for the period of 6 years from 2015 to 2018. This study is based on the secondary data. Variable selection depends on research objectives. To examine the relationship between profitability and liquidity, researcher selected some dependent and independent variables. The researcher has also used SPSS software to analyse the data.

Model:

Profitability=$\alpha_n + \beta_1(Liquidity\ Ratios)_{nt} + e_{nt}$

H_0:There is no significant relationship profitability and liquidity

H_1:There is a significant relationship profitability and liquidity

From the above model the researcher chose operating profit ratio is considered as the proxy of profitability. Operating profit ratio is the independent variable and some independent variables are Current ratio, Liquid ratio and Inventory to CA ratios which are showing the liquidity of the company. The data collected from the Money control Database.

5. **Data analysis and Interpretation:**

Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
CR	1.2497	1.5787	1.44	.1284
LR	1.1312	1.4735	1.32	.1263
INV/CA	.0583	.1030	.082	.01883
OPR	.1181	.1826	0.149	.0274
NP	.0818	.1274	0.110	.01893

The mean values of three liquidity variables i.e. CR, LR and Inventory to CA are 1.44, 1.32 and 0.082 respectively. The result of Standard deviation of the CR is 0.1284 and LR is 0.0.1263. Although the lowest standard deviations express the standard position of the companies and the highest standard deviation showed the volatility position of the companies. The mean value of OPR and NP are 0.149and 0.110 with standard deviation are 0.027 and 0.019 respectively.

Liquidity Analysis:

Current Ratio

YEAR	CA	CL	CR

2021	17022	11227	1.52
2020	12804	9260	1.38
2019	14319	9070	1.58
2018	12406	8394	1.48
2017	11094	8877	1.25
Average			1.44
r			0.874

The above table shows that current asset and current liabilities are increased gradually. During the study period the average current ratio was 1.44 which is less than the standard ratio 2:1.It indicates the liquidity position of the concern was not sound but tries to reach standard. So, the management should concentrate on current ratio in future. There is a positive relationship between current assets and current liabilities of Ambuja Cements Limited.

Liquidity Ratio

YEAR	QA	CL	LR
2021	15559	11227	1.39
2020	12057.39	9260	1.30
2019	13364.93	9070	1.47
2018	11128.24	8394	1.33
2017	10041.5	8877	1.13
Average			1.32
r			0.86

The above table shows that quick asset and current liabilities are increased gradually. During the study period the average current ratio was 1.32 which is greater than the standard ratio

1:1. It indicates the liquidity position of the concern was sound. There is a positive relationship between quick assets and current liabilities of Ambuja Cements Limited

Inventory to CA Ratio

YEAR	Inventory	CA	Inv./CR
2021	1463	17022	0.085948
2020	746.61	12804	0.058311
2019	954.07	14319	0.06663
2018	1277.76	12406	0.102995
2017	1052.5	11094	0.094871
Growth	18%	12%	
	r		0.52

The above table shows that inventory and current assets are increased gradually. The current asset growth rate is less than the inventory growth rate. During the study period the growth rate is 18% of inventory and the growth rate of current asset is 12%. It indicates the liquidity position of the concern was not sound. There is a positive relationship between inventory and current assets of Ambuja Cements Limited

Profitability Ratio:

Net Profit Ratio

YEAR	NP	Sales	NPR
2021	3690	28965	0.13
2020	3092	24516	0.13
2019	2763	27103	0.10
2018	2960	26040	0.11
2017	1932	23608	0.08

Average	0.11
r	0.78

The above table shows that the net profit ratio increased gradually. The lowest NPR is 0.08 and the highest NPR is 0.13 i.e. 13%. During the study period the average NPR was 0.11(11%). There is a positive relationship between net profit and sales of Ambuja Cement Limited.

Operating Profit Ratio

YEAR	OP	Sales	OPR
2021	5289	28965	0.18
2020	4117	24516	0.17
2019	4025	27103	0.15
2018	3076	26040	0.12
2017	2960	23608	0.13
Average			0.15
r			0.77

The above table shows that the operating profit ratio increased gradually. The lowest OPR is 0.12 and the highest OPR is 0.18 i.e. 18%. During the study period the average OPR was 0.15(15%). There is a positive relationship between operating profit and sales of Ambuja Cement Limited.

Testing of correlation coefficient:

Paired Correlation

		N	Correlation	Sig.
Pair 1	CR & OPR	5	.336	.580
Pair 2	LR & NP	5	.518	.371
Pair 3	CR & NP	5	.492	.400

Pair 4	LR & OPR	5	.440	.458

The paired correlations show the different correlation between variables. The result of correlations between Pair-1 is 0.336, Pair-2 is 0.371, Pair-3 is 0.40 and Pair-4 is 0.458. Although, the significant value of Paired correlation is not support the above results. To test the impact of liquidity on profitability the author also used regression models.

Regression Models:

The researcher first selects operating profit as a dependent variable, which measured the firm's profitability. For this first model the researcher takes liquidity variables such asCurrent Ratio, Liquid Ratio and Inventory to CA Ratio as three independent variables.

Regression statistics when Operating Profit as dependent Variable

Model Summary

Model	R	R Square	Adj.R Square	SE
1	**0.701**	**0.491**	**-1.036**	**0.3906**

Results of ANOVA whenOperating Profit as dependent Variable

Model	SS	df	MS	F	Sig
Regression	0.001	3	0.000	0.321	0.824
Residul	0.002	1	0.002		
Total	0.003	4			

Table-Coefficient

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig
	B	**SE**	**Beta**		

c	**0.675**	**1.398**		**0.483**	**0.714**
LR	**-4.337**	**11.363**	**-20.017**	**-0.382**	**0.768**
CR	**4.018**	**10.409**	**18.848**	**0.386**	**0.765**
INV/CA	**-7.038**	**16.324**	**-4.843**	**-0.431**	**0.741**

The dependent variable, operating profit ratio (OPR) regressed on predicting variables these are current ratio, liquid ratio and inventory to CA. Moreover the R-square is 0.491 which depicts 49% of the variance of the model. Again the p-value indicates that liquidity has no impact on profitability.

Regression statistics when Net Profit as dependent Variable

Model Summary

Model	R	R Square	Adj.R Square	SE
1	**0.965**	**0.931**	**0.722**	**0.0099**

Results of ANOVA whenNet Profit as dependent Variable

Model	SS	df	MS	F	Sig
Regression	0.001	3	0.000	4.467	0.332
Residul	0.000	1	0.000		
Total	0.001	4			

Table-Coefficient

Model	**Unstandardized Coefficient**		**Standardized Coefficient**	**t**	**Sig**
	B	**SE**	**Beta**		
c	**1.098**	**0.367**		**3.075**	**.200**

LR	**-8.784**	**2.903**	**-58.612**	**-3.026**	**.203**
CR	**8.110**	**2.659**	**55.007**	**3.050**	**.202**
INV/CA	**-12.829**	**4.170**	**-12.763**	**-3.077**	**.200**

The dependent variable, net profit ratio (NPR) regressed on predicting variables these are current ratio, liquid ratio and inventory to CA. Moreover the R-square is 0.93 which depicts 93% of the variance of the model. Again the p-value indicates that liquidity has no impact on profitability.

6. Findings:

The current ratio of the company is not attaining the standard level 2:1. So, Current ratio of the company is not satisfactory. The liquid ratio of company reached to standard level 1:1. So, liquid ratio is satisfactory for the company.Net profit ratio is the ratio of net profit earned by a business. It measures overall profitability. The ratio is normal in case of net profit ratio of the company.Operating profit is greater than net profit which shows the position of the concern.From the analysis it has been cleared that the short term solvency position of issatisfactory during the period.Current Assets trend of the concern was favourable throughout the study period.

7. **Suggestion:**

- The liquidity position of the company can be utilized in a better or other effective purpose
- It is advisable to take more efforts to increase the overall efficiency of the business.
- The company shows better net profit ratios and it should maintain.

8. Limitations:

The study covered only last five years (2017-2021) based on financial reports published by the company.

The researcher takes only three liquidity ratios and two profitability ratios.

9. Conclusion:

In India the cement sector is one of the most important manufacturing industries. Cement companies make a significant contribution to India's economy. These businesses have created employment opportunities. Liquidity position of the company was satisfactory during the study period. The result of profitability shows the satisfactory results of the concern. The correlation between liquidity and profitability was highest in the company which shows a high degree of positive correlation but liquidity has no impact on profitability.

References:

1. Burange, L.G, Yamini, S., 2009, Performance of the Indian Cement Industry: The Competitive Landscape, ArthaVijanana, LI(3), p. 209-242.

2. Dhivya, J., Shobanpriya, P., Karthika, P., Bakiyaraj, K., 2017, A study on financial performance of cement industry with special reference to ACC Limited, International Jounal of Creative Research Thoughts, 5(4), p. 1627-1635.

3. Ershad, S., Uddin, M., Faruk O., 2021, Analysis of the financial performanece of selected cement industries of Bangladesh, Internal Journal of Finance Research,2(1). P.46-57.

4. Prajapati, J.K., 2019, Financial performance analysis of selected cement companies in India, IJESE, 9(11), P. 24109-24111.

5. Soni, S., 2018, A study on the financial performance of JK cement, International Journal of Research and Review, 1(5), p. 115-119.