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The Study Examines the Financial Performance of the Indian Cement Firms, Utilizing the Du Pont Model

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Abstract

To better understand a company's financial performance, the DuPont analysis (DA) is a financial ratio research that dissects the return on equity (ROE) into its contributing elements. By dissecting ROE into several crucial factors, such as profitability, leverage, and performance, it is possible to assess the company's financial standing and prospects more thoroughly. This study based on the secondary data collected through BSE (Bombay Stock Exchange). It covers the period from 2011 to 2021. Total firm of the study is 26. According to the data, many cement company's generated good profits during the research period, with only a small number of cement companies failing to generate sufficient profits. These cement companies' equity multiplier and return on equity was also high. As for the firms' general fiscal health, the study recommended that it work to increase its net profit margin and asset turnover ratio.

Keywords: DA, NPM, AT, EM, ROE, Cement Industry.

Introduction

India is the second largest builder of cement companies in the world. Since Unregulated in 1982, Indian cement firms have attracted huge investments from Indian as well as foreign investors. The cement industry employs 20,000 peoples across downstream sectors for every million tone of cement produced [1]."

Financial performance is general terms that describe the overall financial health of organization. "A firms overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare other industries or sectors in aggregation [2]."

This model breaks down earnings per share to explain to investors how companies can improve their earnings. It looks at major elements of the *ROE* including the "*NPM*, *TAT*, and *FL*". It concluded that a firm can raise its "*ROE*" by preserve a high level in profit margin, improving an asset turnover, or leveraging assets more attractively [3].

Review of Literature

Burja and Marginean (2014) [1], in a study titled "*The Study of Factors That May Influence the Performance by the DuPont Analysis in the Furniture Industry*" the analysis by this model is realized through the according to other rates of return, such as return on sales, return on assets or equity multiplier. The study selected a sample of five large furniture firms for a period of 13 years from 2000 to 2012. It revealed that the return on equity profitability expressed by the furniture industry has strongly positive correlations with *NI*, *ROS*, *ROA* and *TTR* and lesser firms negative with *EM*.

Kim (2016) [2] the study found that ROE and ROI are the most inclusive quantify of business fertility. Gopi "(2018) [3], in a study titled "*Financial Performance of Cement Industry in India Using Extended Du Pont Approach*" the study selecting three cement firms like *ACC*, *Gujarat Ambuja* and *UltraTech* for the period from 2006 to 2015 by using the Du Pont approach. The study founded that return on equity of all the cement firms have declined drastically during 2006 to 2015."

Bhagyalakshmi and Saraswathi (2019) [4] the result shows there is a positive association with all the variables not including EM. Sanny and Yanti (2019) [5] the DuPont analysis revealed that significant differences between "*ROI* and *ROE*".

Manpreet and Parvinder (2022) [6], in a study titled "*Financial Performance Analysis of Bharat Heavy Electrical Limited through Du Pont Model*" the study was based on financial performance of Bharat Heavy Electrical Limited over the period from 2020-11 to 2019-20 and secondary data collected from published annual reports of BHEL. The results showed that the financial performance of the firm is not good, and showed a poor position of *ROE* during the study period. The researcher suggested that the management should set and select appropriate financing and operating strategies to be competent in the industry. It is also suggested that the firm should try to develop its *ROE* position in order to improve its overall financial health.

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Objective

To major objective of the study is to analysis the financial performance of cement industry with the help of Du Pont Model.

Research Methodology

We used secondary data through the Money Control which are listed in BSE. The final sample includes 26 firms from cement industry in India (data availability for the study period i.e. from 2011 to 2021).

Table 1: List of the Firms

Sl. No.	Firms	Sl. No.	Firms
1	Ambuja Cements	14	Anjani Cement
2	J.K. Cement	15	Everest Industries
3	Ramco Cements	16	Shiva Cement
4	JK Lakshmi Cem	17	Sahyadri Industries
5	India Cements	18	Saurashtra Cement
6	HIL	19	Guj Sidhee Cement
7	Sagar Cement	20	Kakatiya Cement
8	Jaiprakash Asso	21	Keerthi Industries
9	Ramco industries	22	Niraj Cement
10	KCP	23	A Infrastructure Ltd.
11	Mangalam Cement	24	Katwa Udyog
12	Visaka Industries	25	Barak Vally Cement
13	Deccan Cements	26	Burnpur Cement

Source: https://rb.gy/gumpgw

The researchers has used financial technique i.e. Du Pont model. The researchers have used MS EXCEL for carrying out the data analysis and interpretation.

DuPont Model

Du Pont Model is also known as Du Pont Analysis. It is basically anatomy of return on equity ratio. As the concept was applied in Du Pont Company in 1920's hence the name DuPont. (Kapil, 2015)

Here the return on equity ROE is separated into three parts equation.

ROE = (Net Income / Revenue)* (Revenue / Total Assets)* (Total Assets / Total Equity)

i). First Part – Profitability of the firm measured by Net Profit Margin (NPM)

$$NPM = (Net\ Income / Revenue)$$

ii). 2. Second Part – Operating Efficiency calculated by asset turnover (AT)

$$AT = (Sales / Total\ Assets)$$

iii). 3. Third Part – Financial Leverage of the firm calculated by equity multiplier (EM)

$$EM = (Total\ Assets / Total\ Equity)$$

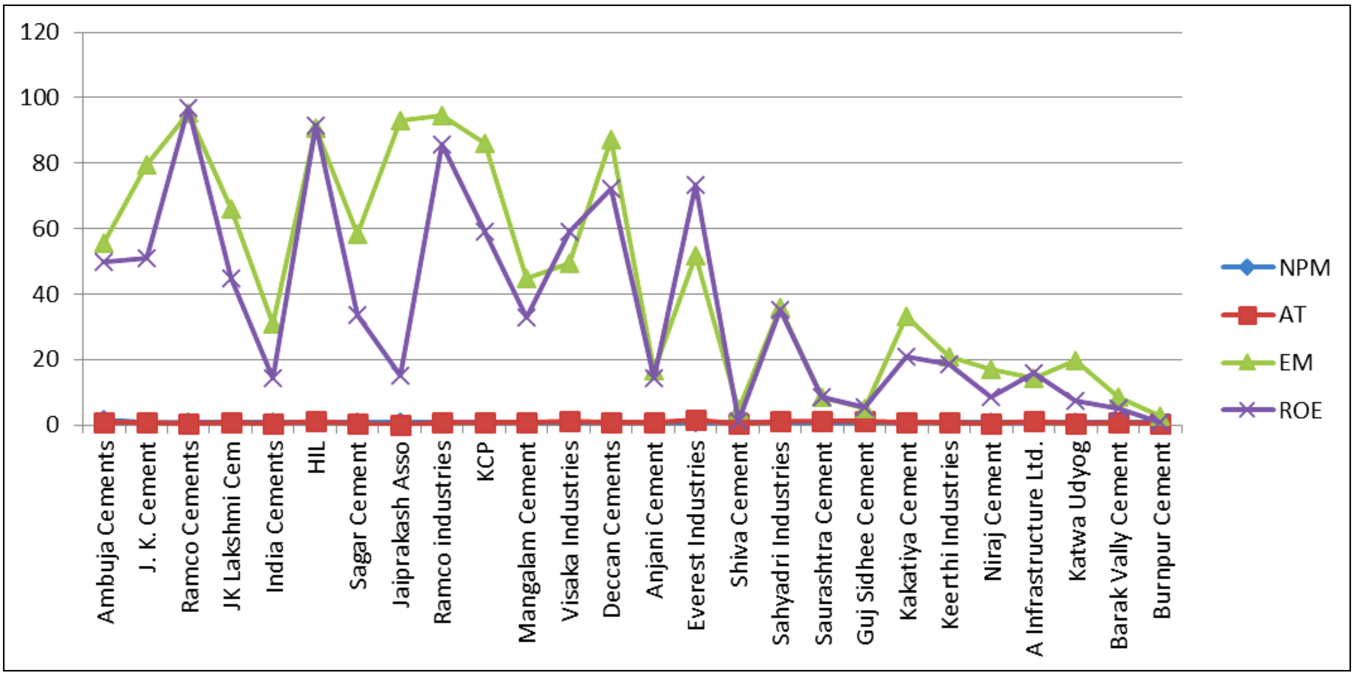
Results and Discussion

The table shows that the *DA* of Cement industry from 2011 to 2021. It has been done by the considering the *NPM*, *AT,* and *EM* for calculating *ROE*. The DuPont analysis shows that maximum *NPM* of 1.65 in Ambuja Cements and decreases of all other Cement firms, it finally the low in *NPM* of 0.76 in Jaiprakash Association; the highest *AT* of 1.43 in Everest industries and decreases of all other Cement firms, it finally the lowest of the *AT* of 0.21 in Jaiprakash Association; the maximum *EM* of 95.36 in Ramco Cements and decreases of all other Cement firms, it finally the low level in *EM* of 2.67 in Bumper Cement; the maximum *ROE* of 96.86 in Ramco Cements and decreases of all other Cement firms, it finally the low level of the *ROE* of 0.84 in Bumper Cement.

Table 2: Du Pont Analysis (2011 to 2021)

Sl. No.	Firms	NPM	AT	EM	ROE
1	Ambuja Cements	1.65	0.90	55.71	49.94
2	J. K. Cement	0.94	0.68	79.38	50.82
3	Ramco Cements	0.96	0.54	95.36	96.86
4	JK Lakshmi Cem	0.94	0.72	65.86	44.86
5	India Cements	0.94	0.50	31.01	14.42
6	HIL	0.96	1.15	90.88	91.60
7	Sagar Cement	0.90	0.61	58.40	33.76
8	Jaiprakash Asso	0.76	0.21	93.05	15.21
9	Ramco industries	0.92	0.74	94.55	85.79
10	KCP	0.92	0.72	86.02	59.16
11	Mangalam Cement	0.93	0.76	44.90	32.81
12	Visaka Industries	0.97	1.22	49.24	58.94
13	Deccan Cements	0.96	0.86	87.30	72.37
14	Anjani Cement	0.96	0.91	16.69	14.35
15	Everest Industries	0.98	1.43	51.60	73.21
16	Shiva Cement	0.90	0.26	4.64	1.01
17	Sahyadri Industries	0.95	1.02	35.85	35.20
18	Saurashtra Cement	0.93	1.04	8.62	8.72
19	Guj Sidhee Cement	0.97	1.09	5.10	5.50
20	Kakatiya Cement	0.93	0.64	33.16	21.06
21	Keerthi Industries	0.90	0.94	20.69	18.52
22	Niraj Cement	0.95	0.53	16.96	8.70
23	A Infrastructure Ltd.	0.96	1.14	14.44	15.91
24	Katwa Udyog	0.86	0.43	19.65	7.21
25	Barak Vally Cement	0.94	0.63	8.68	5.18
26	Burnpur Cement	0.82	0.38	2.67	0.84

Source: *Money Control*



Source: *Money Control*

Fig 1: Trend of Du Pont Analysis (2011 to 2021)

The figure shows that the *NPM,* and *AT* trend of all cement firms is continuously has not able to earn adequate profits in the study period. The *EM* and *ROE* trend of many cement firms has been earn good profits during the study period and only few cement firms has not able to earn adequate profits in the study period.

Findings

The study focused on the maximum net profit margin of 1.65 in Ambuja Cements, and maximum asset turnover of 1.43 in Everest industries. However, net profit margin and asset turnover trend of all cement firms is continuously has not able to earn adequate profits in the study period.

Further, highest equity multiplier of 95.36 in Ramco Cements and highest return on equity of 96.86 in Ramco Cements. However, equity multiplier and return on equity trend of many cement firms has been earn good profits in the study period.

Conclusion

This study has focusing financial ratios like "*NPM, AT, EM* & *ROE*" applying DuPont model. The present study concluded that the *EM* and *ROE* of many cement firms has been earn good profits in the study period and only few cement firms has not able to earn adequate profits in the study period. The researcher suggested that the firm will try to develop its *NPM* and *ATR* its overall financial health.

Limitations

The study considered Cement Industry in India with the 10 years period only.

Abbreviations

- **DA:** DuPont Analysis
- **ROE:** Return on Equity
- **PM:** Profit Margin
- **ATR:** Asset Turnover
- **EM:** Equity Multiplier
- **TAT:** Total Asset Turnover
- **FL:** Financial Leverage

References

1. Burja V and Marginean R. The Study of Factors That May Influence the Performance by the DuPont Analysis in the Furniture Industry. *Procedia Economics and Finance.* 2014; 16(4):213-23.
2. Kim S. A Study of Financial Performance Using DuPont Analysis in Food Distribution Market. *Culinary Science and Hospitality Research.* 2016; 22(6):52–60.
3. Gopi KT. Financial Performance of Cement Industry in India Using Extended Du Pont Approach. *Asian Journal of Managerial Science*. 2018; 7(2):16-20.
4. Bhagyalakshmi K and Saraswathi S. Analyzed the financial performance evaluation using DuPont Analysis in select Automobile Companies. *International Journal of Management, Technology and Engineering.* 2019; 9(1):354-62.
5. Sanny A and Yanti ED. DuPont Analysis Integrative Approach to Ratio Analysis at PT/ Federal International Finance. *International Journal of Research & Review*. 2019; 6(11):319-26.
6. Manpreet S and Parvinder K. Financial Performance Analysis of Bharat Heavy Electrical Limited through Du Pont Model. *The Journal of Research in Business and Management.* 2022; 10(3):62-6.
7. https://indiancompanies.in/top-10-companies-in-cement-industry-in-india/
8. https://www.investopedia.com/terms/f/financialperformance.asp#:~:text=our%20editorial%20policies-,What%20Is%20Financial%20Performance%3F,health%20over%20a%20given%20period.
9. https://www.myaccountingcourse.com/financial-ratios/dupont-analysis.