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Wealth Creation Analysis of Select Cement Companies in India

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ABSTRACT

India is the second largest producer of cement in the world. Cement production increased at a compound annual growth rate (CAGR) of 9.7 per cent in the period 2006 – 2013, producing 272 million tonnes (MT). This study was focused on the analysis of performance in major cement companies in India. The data were collected by the secondary sources through the financial data were obtained from their website. The study was during 10 years 2006-07 to 2015-16 of the ten companies. For the result comparative analysis both the companies must improve their short term solvency position.

Key words: *Ratio Analysis, Financial performance, Cement Industry.*

INTRODUCTION

India is the second largest producer of cement in the world. Cement production increased at a compound annual growth rate (CAGR) of 9.7 per cent in the period 2006– 2013, producing 272 million tonnes (MT). In the period 2015-16 estimated to producing 289 million tones(MT). The production capacity is projected to reach 550 MT by FY 2020.The cement industry has been expanding on the back of increasing infrastructure activities and demand from the housing sector. The Department of Industrial Policy and Promotion (DIPP), report says that cement and gypsum products attracted foreign direct investment (FDI) worth Rs 13,370.32 crore (US$ 2.24 billion) between April 2000 and February 2014.The housing segment accounts for a major portion of the total domestic demand for cement in India. In the 12th Five Year Plan of the Government, there is a strong focus on infrastructure development and the Government plans to increase investment in infrastructure to an amount of US$ 1 trillion. The industry is expected to add a capacity of 150 MT during the Plan period.

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STATEMENT OF THE PROBLEM

The major problems of cement industry in India are the requirement of large capital investment, latest production technology, improved labour productivity and efficient management. In this situation it is the need of the hour to measure the present status of the select cement companies in terms of financial aspects and improve the financial healthiness of the cement companies in India by the effective use of working capital, reducing the energy crisis, controlling the cost of production to meet the price wars effectively etc. In addition, Wealth creation is very much beneficial to the stakeholders and is possible by the improvement in the operational performance of the companies. In order to enhance operational efficiency and wealth maximization possibilities, the study would concentrate on these two aspects in select cement companies in India.

NEED FOR THE STUDY

This study has been undertaken to assess the wealth creation of the select cement companies. The present study has focused on analyzing the various aspects related to the wealth creation of the cement industry in India. The companies in the cement industry in India will also be able to know their existing financial strength of this study so as to take the policy decisions relating to finance in the future.

OBJECTIVES OF THE STUDY

- To measure the wealth creation of select cement companies in India.
- To analyze the wealth creation of select cement companies in India.
- To offer suitable suggestions for the improvement of performance and wealth creation

HYPOTHESIS

- There is no significant relationship between log of Market capitalization per Shareholders fund and log of Sales, log of Total Assets, log of Asset leverage, log of Earning Per Share, log of Price Earnings Ratio and log of Return on Capital Employed.
- There is no significant difference in the distribution of Market Capitalization Per Shareholders Fund across select cement companies in India.
- Market Capitalization variable sets and Contributors of Wealth Creation variables are not linearly related.

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REVIEW OF LITERATURE

Tian et al. (2013) made an attempt to measure the value-creation ability of the enterprises. EVA was applied to analyzed the value-creating ability of the whole blue economic zone based upon the accounting report data from 2009-2011, by taking the listed companies in the Shandong Island blue economic zone. Thereafter, a comparison regarding the value-creating ability of these listed companies was proposed in the view of the industry. As a result, the ability to create value of the listed companies in the Shandong island blue economic zone had shown an increasing tendency during the last three years. The EVA rate, which is an index which can reflect capital efficiency, increased at first and started decreasing afterwards. However, there showed a huge gap between the different industries.

Vijayalakshmi and Manoharan (2013) carried out an empirical study which examined the impact of the leverage on shareholder value creation of the Indian miscellaneous manufacturing sector. For corporate growth, shareholder value creation has become a focusable area. Because the shareholders are the ultimate owners of the enterprises, every firm has to construct a capital structure keeping in mind the objective of shareholder's wealth maximization. Miscellaneous manufacturing sector is said to be a capital intensive sector, where a greater emphasis 30 is laid upon designing the capital structure. The period for which the study was conducted was 1995-96 to 2009-10. To analyze the data a panel approach has been applied. According to the results of the study, the leverage has a significant influence on the shareholders value creation.

Bhargav Pandya (2014) had undertaken study on "Shareholder Value Creation: An Overview" found that the shareholder value creation approach helps to strengthen the competitive position of the firm by focusing wealth creation. It provides an objectives and the consistent framework of evaluation and decision making across all functions, department and units of the firm.

Pooja Sharma and Abhay Grover (2015) explore and study the shareholder's value creation in Indian companies as measured by EVA and to determine the key factors that have an impact on shareholders' value creation. In the present study we have taken dividend and capital structure as independent variable and EVA as 31 dependent variable. Regression technique has been used in order to examine the impact of Dividend and Capital structure on Shareholder Value Creation (SVC). The study reveals that both Dividend and Capital structure have influence on the Shareholder Value Creation. It is also found that mostly all companies are having positive EVA which indicates that these

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companies are not only thinking about profit maximization but also focusing on the objective of wealth maximization.

RESEARCH METHODOLOGY

Period of Data:

Data related to the select ten cement companies in India has been taken from the annual reports for the 10 years from 2006-2007 to 2015-2016.

Framework of Analysis:

After the collection of secondary data on select cement companies, various statistical tools and techniques is used to complete the study.

Tools Used:

Ratio Analysis, Multiple Regression Analysis, Kruskal Wallis Test and Canonical Correlation analysis.

SCOPE OF THE STUDY

This study intends to analyze the wealth creation of the selected cement companies. It has identified areas which can be improved. Further, the study has made suggestions to help the management of cement companies to better utilize corporate resources. The present study analyses the efficiency of working capital management and wealth maximization possibilities.

LIMITATIONS OF THE STUDY

1. There are different methods to determine the operational performance and wealth creation and hence the opinion and results may differ from one method to another method.
2. As wealth creation depends on the market price of the shares which is a stock market data arriving market capitalization calculation may differ.

DATA ANALYSIS AND INTERPRETATION

Wealth Analysis

Wealth maximization depends on growth drivers, Cash flow drivers and financial drivers. Maximization of wealth is possible by the market maximizers, asset maximizers, cash flow maximizers and profit maximizers. Variables related to the wealth creations are measured and with proper statistical tools, models can build to determine the contributing factors of wealth creation. The results of the analysis are given below:

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Table -1 Snapshot of Value Creation Ratios of Select Cement Companies

Ratios	Ultratech Cement	Grasim Cement	India Cement	Ramco Cement	Birla Cement	JK Cement	Sagar Cement	Deccan Cement	NCL Cement	Anjani Cement
EPS	78.99	146.68	8.83	70.92	37.55	23.49	32.43	34.62	5.19	5.01
P/E ratio	20.43	4.70	20.46	13.36	9.55	14.07	14.06	15.28	4.56	12.66
External financing index	8.79	62.28	302.40	2.46	8.37	7.63	132.08	-7.99	-12.62	150.93
Market capitalization per share	3.55	2.74	1.14	2.59	1.27	1.46	1.63	0.81	0.99	1.39
Market capitalisation ` cr.	39161	25114	3197	4583	2222	1867	351	159	141	95

The above table of value creation ratios shows the results given below, EPS is the earnings maximizer which plays vital role in changing the value creations. Value created is lesser in case of NCL Cement and Anjani Cement. Price-earnings Ratio market price maximizer which also influences the value creation of a firm. P/E is lesser in case of Grasim Cement, Birla Cement and NCL Cement. All other companies P/E are good. External Financing Index is a financial maximizer which also influences the value creation of the firm in inverse direction. If the index is higher, value creation may be lower due to higher financial charges. Index is greater in case of India Cement, Sagar Cement and Anjani Cement companies. Whereas it is lowest in case of Deccan Cement and NCL Cement.

Market capitalization per share holder's fund is a value maximizer which shows the wealth created per shareholders fund. It is greater than 1 in case of all companies except Deccan Cement and NCL Cement. Market Capitalization in cr. shows the wealth creation of the cement companies.

Hypothesis: There is no significant relationship between log of Market Capitalisation Per Shareholders Fund and log of Sales, log of Total Assets, log of Asset Leverage, log of Earning Per Share, log of Price Earnings Ratio and log of Return on Capital Employed.

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Table – 2 ANOVA and Model Summary

Company Name	R Value	R Square	Std. Error	Durbin-Watson Statistic	F Value	Sig.,	Results
UltraTech Cement	0.981	0.962	0.066	1.921	49.989	0.000	Rejected
Grasim Cement	0.939	0.882	0.087	1.355	26.278	0.001	Rejected
India Cement	0.998	0.997	0.037	1.579	289.302	0.000	Rejected
Ramco Cement	0.995	0.989	0.055	2.144	183.103	0.000	Rejected
Birla Cement	0.995	0.991	0.041	2.960	136.243	0.000	Rejected
JK Cement	0.997	0.993	0.065	2.650	289.813	0.000	Rejected
Sagar Cement	0.932	0.869	0.218	2.121	13.295	0.000	Rejected
Deccan Cement	0.992	0.984	0.067	1.680	49.820	0.001	Rejected
NCL Cement	0.998	0.996	0.041	2.696	180.651	0.001	Rejected
Anjani Cement	0.981	0.962	0.158	2.411	42.366	0.001	Rejected

The above ANOVA table shows that the P value is less than 0.05 and hence the regression model is acceptable at 5% level of significance. Hence, the hypothesis is rejected. Some of the variables are excluded since it has multi co-linarites indicated by tolerance. The model summary table reports regression determination which shows that about the variation is explained by the independent variables. The Durbin-Watson statistics is between 0 and 4, indicating no auto correlation in the sample. The variable Inflation Factor (VIF) is less than 10 and hence there is no multi collinearity within the independent variables.

Table – 3 Wealth Creation and Related Independent variables –Constants and Co-efficients

Independent variables	**Ultratech Cement**	**Grasim Cement**	**India Cements**	**Ramco Cement**	**Birla Corp Ceement**	**Jk Cement**	**Sagar Cement**	**Deccan Cement**	**Ncl Cement**	**Anjani Cement**
CONSTANTS	2.738	1.430	4.699	3.439	1.156	2.227	0.321	4.710	0.837	0.022
Log of Total Assets			-1.867	-0.736	0.925	-0.946	-0.780	-1.102	-0.736	-0.574
Log of Sales			0.927		-1.051					
Log of Asset Leverage								3.018		
Log of P-E	0.838	0.727	0.926	0.671	0.981	1.142	1.008	0.520	0.942	0.948
Log of EPS	-0.541		0.870	0.754		0.984	0.872	0.566	0.906	0.878
Log of ROCE	1.142	0.850			1.487			-2.833	-0.232	
Maximum Impact Factor	1.142	0.850	0.927	0.754	1.487	1.142	1.008	3.018	0.942	0.948
Variable	Log of ROCE	Log of ROCE	Log of Sales	Log of EPS	Log of ROCE	Log of P-E	Log of P-E	Log of Asset	Log of P-E	Log of P-E

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								Leverage		

Note: P values at 5 percent level of significance

The above table shows that the wealth creation and related independents variables results are given that, It is observed from the table that the log of Price-Earnings Ratio of all cement companies are positively contributing to the Market Capitalization Per Shareholder's Fund. That is Wealth Creation Per Shareholders Fund. Log of Total Assets is the next influencing variable in respect of 8 cement companies. It is negative for 7 companies and positive for Birla Cement. From the study it is concluded that highest impact factor for value creation is log of Return on Capital Employed in respect of Ultratech Cement, Grasim Cement and Birla Corporation Cement; Log of Sales in respect of India Cement; log of Earning Per Share in respect of Ramco Cement; Log Price Earning in respect of JK Cement, Sagar Cement, NCL Industries Cement and Anjani Cement; Log of Asset leverage in respect of Deccan Cement. As the 4 out of 10 cement company's value creation is influenced by Log Price Earnings, the majority factor is Log Price Earnings.

Hypothesis: There is no significant difference in the distribution of market capitalization per shareholders fund across select cement companies in India.

Table – 4 Ranks - Market Capitalization Per Shareholder's Fund

Name of the company	N	Mean Rank
Ultratech	10	89.70
Grasim	10	79.20
India cements	10	32.55
Ramco cements	10	73.40
Birla corp	10	42.60
JK cements	10	45.40
Sagar cement	10	50.40
Deccan cements	10	20.60
NCL industries	10	29.85
Anjani cement	10	41.30
Total	100	

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Table – 5 Test Statistics[a,b]

	Market Capitalization Per Shareholder's Fund
Chi-Square	55.851
Df	9
Asymp. Sig.	.000
a. Kruskal Wallis Test	

The above table shows that the significant differences in the distribution of Market Capitalization Per Shareholder's Fund. That is the distribution of Market Capitalization Per Shareholder's Fund across the cement companies are not same.

Hypothesis: Market Capitalization variable sets and Contributors of wealth creation variable sets are not linearly related.

Table – 6 Dependent and Covariates

No.	Criterion (Dependent variables)	Predictor (Covariates) variables
1.	Market Capitalization Per SF	Total Assets
2.	Market Capitalization	Sales
3.		Return on Assets Ratio
4.		Asset Leverage Ratio
5.		Price Earnings Ratio
6.		Earnings Per Share
7.		Operating Cash Flow Ratio
8.		External Financing Index

Table – 7 Canonical solution for contributors of wealth : Predicting Market Capitalisation for functions 1 and 2

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The following are the 2 sets of linear combinations of the canonical correlation based on the standardized canonical co-efficient:

U1= 1.084 * Total Assets + 0.077 * Sales + 0.589 * ROA - 0.502 *

Asset Leverage + 0.023 * Price – Earnings + 0.044 * EPS -0.150

* Operational Cash Flows + 0.005 * External Financing Index.

V1 = - 0.0013*MVSF+ 0.0001* MAR CAP

The equation coefficient indicates that the primary contributors are total Asset, Return on Assets and Asset leverage.

Impact Analysis-Function-I

No.	Primary Contributors	Coefficient	Impact on MVSF and Market Capitalization
1.	Total Assets	0.990	Increase in Total Assets Increases the Dependent variables
2.	Sales	0.975	Increase in Sales Increases the Dependent variables
3.	Operating Cash Flows	0.929	Increase in Operating Cash Flow Increases the Dependent variables

Impact Analysis-Function-2

No.	Primary Contributors	Coefficient	Impact on MVSF and Market Capitalization
1.	ROA	0.747	Increase in ROA Increases the Dependent variables
2.	Asset leverage	0.732	Increase in Asset leverage Increases the Dependent variables
3.	EPS	0.759	Increase in EPS Increases the Dependent variables

FINDINGS

- Earning Per Share –Earning maximizer, Price-earnings Ratio market price maximizer, External Financing Index is a financial maximizer plays vital role in changing Market Capitalization per shareholders Fund.
- It is observed from the study that Market capitalization per shareholder's fund would be greater if the Earning Per Share and Price Earnings ratios are greater and External Financing in most of the cases.
- The study shows that the Price Earnings CAGR of Ramco Cement, Deccan Cement and JK Cement is due to high pricing power. PAT–CAGR of Ultratech Cement, NCL Industries and Ramco Cement is due to Growth in profitability.

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- The backward elimination method of multiple regressions has been used to find the relation of wealth creation with log of Sales, log of Total Assets, log of Asset Leverage, log of Earning Per Share, log of Price Earnings Ratio and log of Return on Capital Employed.
- The study shows that the highest impact factor for value creation is log Return on Capital Employed in respect of Ultratech Cement, Grasim Industries Cement and Birla Corporation Cement; Log of sales in respect of India Cements; log of Earning Per Share in respect of Ramco Cement; Log Price Earnings in respect of JK Cement, Sagar Cement, NCL Industries Cement and Anjani Portland Cement; Log of Asset leverage in respect of Deccan Cement. As the 4 out of 10 cement company's value creation is influenced by Log Price Earnings, the majority factor is Log Price Earnings.
- The distribution of market capitalization per shareholders fund is not the same across the ten cement companies and hence, Kruskal-Wallis test's null hypothesis is rejected.
- Canonical Correlation: The Canonical correlation analysis is a method for exploring the relationships between two multivariate sets of variables (vectors), all measured on the same individual. The results of the analysis are given below:
- The Function 1 structure co-efficients indicates that MVSF and market capitalization are positively related to the independent variables: Total Assets, Sales and Operating Cash Flow ratios. This shows that increase in these variables would increase the MVSF and Market capitalization.
- In Function 2, ROA Asset Leverage and Earnings per Share is major dominant contributor of criterion variables; this variable's signs are Positive and hence they are directly related on this function. In this function MVSF is also having positive patterns. That it indicates that decrease in Return on Assets, Asset Leverage and Earning Per Share would increase the MVSF.

CONCLUSION:

Operational performance improvement and wealth creation are the eyes of a company Identification of the key variables for the improvement operational efficiency is very essential. However, the value creation of a company is purely based on the market price of a share in the stock market. The stock market data is an economic barometer and the changes in market price is due to various factors in the economic and political issues. But the real performer shall always be recognized by the investors for wealth creation purpose. Market pricing of a share depends on asset growth, sales growth, earnings growth and future prospects. Value drivers of wealth creation are based on Growth drivers, efficiency drivers and financial drivers. Majority of the company's wealth creation is influenced by Price-Earnings Ratio. Canonical correlation also emphasis that Total Assets, Sales, Earning Per Share and Operating cash flows are the primary factors influencing the market capitalization per Share holder's Fund. Hence, it is seen that better performers would be

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better wealth creators. Every company should try to become a world class manufacturer and a global leader by concentrating on improvement of productivity, capturing of markets.

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