

## MARKET VALUE ADDED ANALYSIS OF SELECTED CEMENT COMPANIES IN RAJASTHAN

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### ABSTRACT

*Market value added (MVA) is the difference between the current market value of a company and the capital contributed by investors. If MVA is positive, the company has added value. If it is negative, the company has destroyed value. In this paper analysis of Market Value Added and measure of correlation between MVA and PROFITABILITY. The data for the purpose were gathered from 73 respondents of the 4 Cement Companies in Rajasthan including Shree Cement Limited, J.K. Cement Limited, JK Lakshmi Cement Limited and Binani Cement Limited. The analyzed with SPSS software by using ANOVA test and the results indicated there is a significant difference in the values of the MVA in various companies among the selected period and insignificant difference between the profitability and the MVA of the companies. Moreover the correlation was found to be negative.*

**KEYWORDS:** MVA, Profitability, Correlation, Cement Companies.

### Introduction

Market Value Added (also known as MVA in the business world) constitutes the difference between the market value of a company or concern and the capital contributed to that company or concern by its investors. The higher the MVA, the higher the value of the company—this proves that the company has value, which is contributed by its investors aside from capital. There are many benefits for a company to having a healthy added market value for a company, including increased attractiveness to possible investors; the possibility of high returns for investors; There is a possibility that the company will survive for years to come (and perhaps decades), even if some investors move for cash and new projects; and the company has solid, perhaps noble, place in management, leading to a profitable future.

Market value added is the difference between the market price of common stock and the amount of common equity capital supplied by shareholders.

$MVA = \text{Market Value of Common Stock} - \text{Total Common Equity}$

This formula can be modified as follows:

$MVA = N_s \times P_s - \text{Total Common Equity}$

where  $N_s$  is a number of common stock outstanding,  $P_s$  is a current common stock price, total common equity is a book value of common equity.

If a company has preferred stock outstanding, then the available market value for all stockholders can be calculated as follows:

$MVA = \text{Market Value of Stock} - \text{Total Equity}$

or

$MVA = N_s \times P_s + N_{ps} \times P_{ps} - \text{Total Common Equity}$

Where  $N_{ps}$  is a number of preferred stock outstanding,  $P_{ps}$  is a current preferred stock price, total equity is a book value of equity.

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Sometimes the market value added can be defined as the difference between the total market value of the company and the capital supplied by all investors.

$$\text{MVA} = \text{Total Market Value} - \text{Invested Capital}$$

or

$$\text{MVA} = \text{Market Value of Stock} + \text{MVA} + \text{Market Value of Debt} - \text{Invested Capital}$$

The market value of a stock can be easily calculated as shown above, but sometimes debt does not have market value. It is easy to define, so many academic studies recommend using the book value of debt.

### Review of Literature

**Pape (2018)** showed that an increasing share of variable renewable energy sources (VREs) fundamentally affects the electricity price formation in two ways: (1) The so-called merit order effect tends to lower the base price level and challenges conventional plants to remain profitable. (2) Due to the variable nature of renewable energy in feed, the short-term demand for flexibility increases and the volatility of electricity prices changes. The more variable prices provide opportunities for controllable electricity producers (CEPs) who provide up- and down-ramping flexibility to increase their revenues. In contrast, the VREs with high degrees of simultaneity tend to pay for this flexibility in the electricity spot market to reduce their imbalance exposure. The intraday market (IDM) for electricity has gained importance for the market value of different technologies lately and continues to expand due to the increasing efforts to balance within-day deviation from day-ahead schedules. This article presents a combination and extension of two existing models to capture the peculiarities of the intraday price formation and to analyze the impact of the IDM on the market value of VREs and CEPs. Doing so, the paper suggests an adjustment of the classical market value factor metric and to go beyond classical day-ahead market (DAM) information. The article shows that market value factors (MVFs) can be stabilized if the IDM delivers 'market-based' price signals for the costs of flexibility, that are sufficient to activate flexibilities prior to the usually more expensive imbalance mechanism (IBM). Yet, the MVFs from single VRE technologies will worsen if their market share is high enough to outweigh forecast errors from other technologies and if they become a permanent price maker in the IDM and the IBM.

**Panagiotiset.al, (2018)** has presented evidence of economies of scale for large banks, providing a justification for some very large banks seen around the world. In this study, we focus on the downside of bank size which relates to monitoring costs. In specifically, we show that the relationship between size and bank's market to book value of assets is contained by the cost of the manager to directly monitor the borrowers and by the (delegation) cost of the owner to monitor the bank manager. Using a sample of US bank holding companies from 2001 to 2015, we provide evidence that the relationship between size and bank's market to book value of assets is inverse U-shaped and that monitoring costs offset the benefits from economies of scale.

**Boubakriet.al. (2018)** were inspired by the recent rise of state capitalism, this paper examines the effects of government ownership on market valuation in a sample of publicly listed corporations from East Asia. We find strong, robust evidence that government-owned firms exhibit higher market valuation than non-government-owned firms, but the relation is not linear. The benefits of government ownership in terms of value premium extend to closely held firms where the government is a second block holder. These effects stem from the financing decisions of government-owned firms and from the discount rate of cash flows, and hold prior to and during the recent global financial crisis. Additional analyzes suggest that the impact of government ownership on valuation is influenced by financial market development and the quality of institutions and government in place. Collectively, our results mean that government ownership can be valuable.

### Research Methodology

- **Type of Data**

In present research, the respondents were selected using convenience sampling (using a cross-sectional design) from select organizations. The study concerns itself with the period of seven years i.e. from 2011-2012 to 2017-2018

- **Sampling**

The technique or the procedure adopt for current study is to gather primary data from the sample to professionals working in the cement industry. 4 sample units from current industry were selected to draw inference about the population.

- **Population**

The universe of present study consists of all cement companies operated in Rajasthan and all the professionals who are decision makers in their cement companies.

- **Sample Unit**

4 Cement Companies including Shree Cement Limited, J.K. Cement Limited, JK Lakshmi Cement Limited, and Binani Cement Limited are included in the sample units with 73 respondents.

- **Sample Size**

This study includes 73 professionals in the aforementioned sampling unit

- **Sources of Data**

For the purpose study of the present study various primary and secondary data are used for analysis Primary Data were collected through questionnaire by personal visit interviews and discussions with senior officials of the concern cement companies .Secondary data On the other hand, secondary data were acquired through Annual report of the companies, financial and other reports of the selected units of selected Cement companies.

- **Methods of Data Analysis**

To analysis the above data of MVA is analyzed with SPSS software by using ANOVA test.

### Data Analysis

To analysis the data first the market value added is measured by taking data of 4 selected cement companies for 7 years. The data gathered is presented as under:

Year	Shree Cement Ltd			J.K. Cement Ltd			JK Lakshmi Cement Ltd			Binani Cement Ltd		
	No of Shares	Share Price	MVA (In Crore)	No of Shares	Share Price	MVA(In Crore)	No of Shares	Share Price	MVA(In Crore)	No of Shares	Share Price	MVA(In Crore)
2011-12	3,48,37,225	3189.7	11112.03	6,99,27,250	176.4	1233.517	11,76,70,066	86.5	1017.846	18,86,01,274	68	1282.489
2012-13	3,48,37,225	4961.35	17283.97	6,99,27,250	315	2202.708	11,76,70,066	108.7	1279.074	18,86,01,274	74	1395.649
2013-14	3,48,37,225	7498	26120.95	6,99,27,250	257.6	1801.326	11,76,70,066	130.5	1535.594	18,86,01,274	68.3	1288.147
2014-15	3,48,37,225	11799.95	41107.75	6,99,27,250	738.1	5161.33	11,76,70,066	396.9	4670.325	18,86,01,274	71.4	1346.613
2015-16	3,48,37,225	13148.05	45804.16	6,99,27,250	687.1	4804.701	11,76,70,066	373	4389.093	18,86,01,274	93	1753.992
2016-17	3,48,37,225	19998	69667.48	6,99,27,250	985	6887.834	11,76,70,066	494.95	5824.08	3,13,68,025	95.25	298.7804
2017-18	3,48,37,225	17183.55	59862.72	6,99,27,250	1048	7328.376	11,76,70,066	484	5695.231	3,13,68,025	114.8	360.1049

Descriptive								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Shree Cement Limited	7	11111.2286	6246.30310	2360.88066	5334.3617	16888.0954	3189.70	19998.00
J. K. Cement Limited	7	601.0286	354.37253	133.94023	273.2886	928.7685	176.40	1048.00
JK Lakshmi Cement Limited	7	296.3643	181.38163	68.55581	128.6143	464.1143	86.50	494.95
Binani Cement Limited	7	83.5357	17.86964	6.75409	67.0091	100.0624	68.00	114.80
<b>Total</b>	<b>28</b>	<b>3023.0393</b>	<b>5599.51474</b>	<b>1058.20882</b>	<b>851.7741</b>	<b>5194.3044</b>	<b>68.00</b>	<b>19998.00</b>

ANOVA						
	Sum of Squares	Df	Mean Square	F	Sig.	
Between Groups	6.115E8	3	2.038E8	20.813	.000	
Within Groups	2.351E8	24	9793775.242			
<b>Total</b>	<b>8.466E8</b>	<b>27</b>				

Correlations			
		MVA	Net_Profit
MVA	Pearson Correlation	1	-.063
	Sig. (2-tailed)		.749
	N	28	28
Net_Profit	Pearson Correlation	-.063	1
	Sig. (2-tailed)	.749	
	N	28	28

Descriptive Statistics			
	Mean	Std. Deviation	N
MVA	11875.5668	18918.91684	28
Net_Profit	3714.2150	11819.01293	28

### Conclusion

The result of the ANOVA analysis revealed with F ratio 20.813 and  $p < 0.05$  which is significant. It revealed that there is a significant difference in the values of the MVA in various companies among the selected period. As per the Mean analysis the Shree Cement Limited (11111.22 crore) has the highest mean which means that it has increased the value of its shareholders the most and there is insignificant difference between the profitability and the MVA of the companies. Moreover the correlation was found to be negative.

### References

- ~ Ashok Banerjee. (2000) Linkage between Economic Value Added and Market Value: An Analysis, Vikalpa: The Journal for Decision Makers, Volume: 25 issue: 3, page(s): 23-36
- ~ Business, Today (28 Sep 2014). "Concrete Growth". Business Today (Sept 2014). BusinessToday. News. Retrieved 19 March 2015.
- ~ Camanho, A. & Dyson, R. J Oper Res Soc (2005) Cost efficiency, production and value-added models in the analysis of bank branch performance, Journal of the Operational Research Society, 56: 483. <https://doi.org/10.1057/palgrave.jors.2601839>
- ~ Christian Pape (2018). The impact of intraday markets on the market value of flexibility-Decomposing effects on profile and the imbalance costs, Energy Economics, 76(1), 186-201.
- ~ Christoph Dörrenbächer, Jens Gammelgaard, (2006). Subsidiary role development: The effect of micro-political headquarters–subsidiary negotiations on the product, market and value-added scope of foreign-owned subsidiaries, Journal of International Management, 12(3), 266-283.
- ~ Cooke, S.C. Ann RegSci (1991) 25: 145. <https://doi.org/10.1007/BF01581892>
- ~ Dimitrios Maditinos, Dimitrios Chatzoudes, Charalampos Tsairidis, Georgios Theriou, (2011) "The impact of intellectual capital on firms' market value and financial performance", Journal of Intellectual Capital, Vol. 12 Issue: 1, pp.132-151
- ~ Duan Y., Wang Y., Wei J., Kattapur A., Du W. (2014) Value-Added Modelling and Analysis in Service Value Brokerage. In: Lomuscio A.R., Nepal S., Patrizi F., Benatallah B., Brandi I. (eds) Service-Oriented Computing – ICSOC 2013 Workshops. ICSOC 2013. Lecture Notes in Computer Science, vol 8377. Springer, Cham
- ~ Forbes India.(2017) "Shree Cement's Hari Mohan Bangur: On solid ground | Forbes India".. Retrieved 2017-12-16.
- ~ Joseph C. Hartman (2000) On The Equivalence Of Net Present Value And Market Value Added As Measures Of A Project's Economic Worth, The Engineering Economist, 45:2, 158-165.
- ~ Kazakova, N.A., Bolvacheva, A.I., Gendon, A.L. et al. Stud. Russ. Econ. Dev. (2017) 28: 160. <https://doi.org/10.1134/S107570071702006X>
- ~ Michael Wernerheim, C. (2017). Value Added. In International Encyclopedia of Geography: People, the Earth, Environment and Technology (eds D. Richardson, N. Castree, M. F. Goodchild, A. Kobayashi, W. Liu and R. A. Marston). doi:10.1002/9781118786352.wbieg0233
- ~ Ming-Chin Chen, Shu-Ju Cheng, Yuhchang Hwang, (2005) "An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance", Journal of Intellectual Capital, Vol. 6 Issue: 2, pp.159-176.
- ~ Mohammad Alipour, Mohammad Ebrahim Pejman, (2015). The impact of performance measures, leverage and efficiency on market value added: Evidence from Iran, Global Economics and Management Review, 20 (1), 6-14.
- ~ Nakamura, Y. (2015) Trade in value added in the West Pacific: an input-output analysis, Journal of Economic Structures, 4: 2. <https://doi.org/10.1186/s40008-015-0014-7>
- ~ Narjess Boubakri, Sadok El Ghouli, Omrane Guedhami, William L. Megginson, (2018). The market value of government ownership, Journal of Corporate Finance, 50(1), 44-65.
- ~ Nufazil A Itaf (2016). Economic value added or earnings: What explains market value in Indian firms?, Future Business Journal, 2(2), 152-166.

- 42 Inspira- Journal of Commerce, Economics & Computer Science: Volume 06, No. 01, January-March, 2020
- ~ Panagiotis Avramidis, Christos Cabolis, Konstantinos Serfes (2018), Bank size and market value: The role of direct monitoring and delegation costs, *Journal of Banking & Finance*, 93,127-138,
- ~ Roos J., Robert L. Edvinsson & N. Dragonetti. (1998). *Intellectual Capital: Navigating in the New Business Landscape*. New York University Press.
- ~ Scott A. Imberman, Michael F. Lovenheim (2016). Does the market value value-added? Evidence from housing prices after a public release of school and teacher value-added, *Journal of Urban Economics*, 91(1), 104-121.
- ~ Shree, Cement(2017). "Financial Reports". [www.shreecement.in](http://www.shreecement.in). Shreecement.
- ~ Shree, Cement. "Financial Reports". [www.shreecement.in](http://www.shreecement.in). Shreecement. Retrieved 19 March 2015.
- ~ Tang Y., Zhuang Q., Wen P. (2014) Analysis of Value-Added Process for a Logistics System in Manufacturing Business: A Case Study of Yurun Food Company. In: Watada J., Xu B., Wu B. (eds) *Innovative Management in Information and Production*. Springer, New York, NY
- ~ Whiting E. (1986) Value added. In: *A Guide to Business Performance Measurements*. Palgrave Macmillan, London
- ~ Zhang W., Wei R. (2018) Emissions Cost and Value-Added Benefit of Exports in China: An Analysis Based on a Global Input-Output Model. In: Pang R., Bai X., Lovell K. (eds) *Energy, Environment and Transitional Green Growth in China*. Springer, Singapore
- ~ <https://www.goodreturns.in/company/shree-cements/history.html>

