

A Study on Economic Value Added and Market Value Added with reference to Kesoram Cement

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Abstract

Today one of the major goals of financial management is maximum utilization of the capital employed. Since capital resources are scarce and costly, companies try to employ these resources in a way that yield highest return. To help the corporate and generates value for share holders, value based management system has been developed .Indeed value based management which seeks to integrate finance hypothesis with strategic economic philosophy. The current study focuses on analyzing the determinants of Economic Value Added and Market Value Added of the company and also evaluates the performance of value based of select companies in the cement industry.

Keywords: value based management, value for shareholders, EVA, MVA

1. Introduction

To promote value maximizing behavior in corporate manager's .It is single value based measure that has intended to evaluate business, strategies, and capital projects and to maximize long term share holders wealth

To help the corporate and generates value for share holders ,value based management system has been developed .Indeed value based management which seeks to integrate finance hypothesis with strategic economic philosophy is considered as one of the most significant contribution to corporate financial planning in the last two decades as so far, measuring the corporate financial performance there accounting profitability measures and share holders value based measures accounting profitability measures include ROE, EPS, NOPAT, DPS, etc .share holders value based measures including EVA and MVA

Today one of the major goals of financial management is maximum utilization of the capital employed. Since capital resources are scarce and costly, companies try to employ these resources in a way that yield highest return. Of course this should be accompanied by steps taken to minimize the cost of acquired resources. Otherwise, it will not increase the shareholders wealth and firm's value.

The manager of a firm (as an internal user of financial information) and the investor and other parties (as the external users) are interested to use an appropriate performance measure in order to assess how the managerial actions affect the value of the firm. For this purpose the performance measure used, much consider at least three things, which are: the amount of capital invested, the return earned on the capital, and the cost of capital (Weighted Average Cost of Capital).

EVA is closely related to net present value .it is theoretically linked to the corporate finance theory which argues that the value of a firm will increase if you opt for positive npv projects .On the other hand, Market Value Added (MVA) is an indicator which measures the stock return and shows the effect of different factors on share price, in a particular market.

2. Review Literature:

Sarbapriya Ray (2012) published an article “*Efficacy of Economic Value Added Concept in Business Performance Measurement*” focused on the efficacy of Economic Value Added concept in business performance measurement. 2. J.H.v.H. de Wet (2012) published an article “*Executive compensation and the EVA and MVA performance of South African listed companies*” focused on relationship between executive remuneration of South African listed companies and EVA and MVA, as well as traditional performance measures. 3. Nikhil Chandra Shil(2009) published an article “*Performance Measures: An Application of Economic Value Added*” focused on importance on value creation by the management for the owners. 4. Janis K. Zaima, Howard F. Turetsky(2005), published an article “*The MVA-EVA Relationship: Separation of Market Driven Versus Firm Driven Effects*” examine the relationship of EVA to market value in conjunction with controlling for the economic effect of the market. 5. JH de Wet and JH Hall (2004) published an article “*The relationship between EVA, MVA and leverage*” focused on the factors of affecting EVA and MVA. 6. N Zafiris, and R Bayldon,(1999) published an article “*Economic value added and market value added: A simple version and application*” focused on operational criteria and tests of firm performance is largely focused on the Economic Value Added (EVA) framework.

3.0. Research Design:

Research design is based on the objectives of the study, descriptive research has been adopted. It involves formulation of more specific hypothesis and testing them through statistical inference. The research is generally useful when we collect the information from the resources.

3.1 Research Methodology

The Present study is an exclusive study on kesoram cements to meet the formulated objective the data collection is mainly based on secondary sources

3.2 Need for the Study: EVA depicts the economic worthiness and its evaluation of companies performance. Economic value added attempts to measure the true economic profit as it compares actual rate of return against the required rate of return. EVA is an excess profit of a firm after charging cost of capital.

3.3 Objectives: To analyze the determinants of EVA and MVA of the company and to evaluate the performance of value based of select companies.

3.4 Sources of Data: Most of the data used for the study is secondary in nature and has been collected form of Annual report, Financial report, auditor’s report information, company websites from the year 2007-2011.

3.4 Tools of analysis

Computation of EVA: EVA requires three different inputs for its computations there are NOPAT, INVESTED CAPITAL, WACC

$$EVA = NOPAT - (WACC * INVESTED CAPITAL)$$

WACC (weighted average cost of capital) : weights can be assigned on market value basis or book value basis

$$WACC = E/CE * Ke + L/TB/CE * Kd$$

Return on Equity: The return on equity is calculated to see the profitability of owners investment .it is calculated from net profit after taxes /net worth.net worth includes paid up share capital,share premium and reserves, surplus less accumulated losses

$$\text{ROE} = \frac{\text{PAT}}{\text{networth}}$$

Retention Ratio (b) Retention ratio is the fraction of retained earnings.100% minus pay out percentage of earnings is called retention ratio .it is the percentage of earnings retained by the firm

$$b = \frac{\text{EPS-DPS}}{\text{EPS}}$$

Growth (g): Growth represents the compound annualized rate of growth of a company revenues, earnings, dividend, and even macro, concepts such as economy as a whole

$$G = \text{ROE} * b$$

Cost of equity (ke) : The cost of equity is the minimum rate of return a firm must be offer share holders to compensate for waiting for their returns ,and for bearing some risk, the return consist both of dividend and capital gains

$$K_e = D/P_0 + G$$

Cost of debt (Kd): Cost of debt is calculated by multiplying the pre-tax debt cost with 1-t .this will furnish the post tax cost of debt .the post tax cost of debt is calculated

$$K_d = (\text{TIE/DTB}) * (1-T) * 100$$

Correlation Coefficient: Correlation Coefficient is a measure of the correlation (linear dependence) between two variables X and Y, giving a value between +1 and -1 inclusive. It is widely used in the sciences as a measure of the strength of linear dependence between two variables.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

4.0 Data Analysis and Interpretation

Table 4.1/RETURN ON EQUITY:

Year	Pat(Rs in crores)	net worth(Rs in crores)	ROE (%)
2006-07	265.68	654.43	0.40
2007-08	383.35	981.92	0.39
2008-09	378.74	1330.10	0.28
2009-10	234.34	1540.25	0.15
2010-11	-210.21	1300.25	-0.16

Interpretation; The above table reveals that the net worth of kesoram cements increase year after year with that Profit after tax was also increased Except in the year 2011.The Return on equity of the company was also increased from the year 2007 to 2010and in the year 2011 it was decreased because net worth was increased and profit after tax was decreased

Table 4.2: RETURN ON CAPITAL EMPLOYED:

Year	PBIT(Rs in crores)	CM(Rs in crores)	ROCE
2006-07	413.25	678.76	0.61
2007-08	674.39	803.43	0.84
2008-09	635.70	1087.58	0.58
2009-10	663.58	1590.65	0.42
2010-11	199.18	1887.59	0.11

Interpretation The above table reveals that the return on capital employed of kesoram cements is very high in the year 2007-08 is 0.84 why because the capital employed for this year is very low (803.43).and it is very low in the year 2010 to 11 because the capital employed is very high (1887.59) than the return on capital employed.

Table 4.3: RETENTION RATIO:

YEAR	EPS(Rs)	DPS(Rs)	RETENTION RATIO(%)
2006-07	58.08	4.00	0.93
2007-08	83.80	5.50	1.01
2008-09	82.80	5.50	0.94
2009-10	51.88	5.50	0.89
2010-11	-45.85	5.50	-1.12

Interpretation: From the above table it is observed that the company retention was increased for the year 2006 to 2007 because in this year the kesoram company provided arise in EPS and DPS .and it is negative in the year 2010-11this is more dividend per share than of earning per share .

Table 4.4: GROWTH RATIO:

YEAR	ROE (%)	(B) RETENTION RATIO (%)	GROWTH RATIO (%)
2006-07	0.41	0.93	0.38
2007-08	0.39	1.01	0.93
2008-09	0.28	0.94	0.26
2009-10	0.15	0.89	0.14
2010-11	-0.16	-1.12	0.18

Interpretation: The above table reveals that the growth of the shares of the company was increased from the year 2007to 2008. In this year the return on equity and retention ratio is 0.39 and 1.01 this shows that the company shares are performing well .In the year 2010-11 the growth ratio is decreased when compared to previous year because both return on equity and retention is in negative stage.

Table 4.5: NET OPERATING PROFIT AFTER TAX (NOPAT):

YEAR	PBT(Rs in crores)	(1-T)	PAT(1-T)=NOPAT
2006-07	413.25	0.82	338.87
2007-08	674.39	0.75	505.80
2008-09	635.70	0.95	603.92
2009-10	663.58	0.64	424.69
2010-11	199.18	0.71	141.42

Interpretation: From the above table it is observed that the NOPAT of the company during the year 2008-09 was increased. In the year 2008-9 and it is 603.92. It shows that the company is making good profits and it is very low in the year 2010 to 11 because of an increase in tax rate. However, the company is performing moderately compared to the above years.

Table 4.6: RETURN ON NETWORTH:

YEAR	PAT(Rs in crores)	net worth(Rs in crores)	RONW(%)
2006-07	265.68	654.43	0.40
2007-08	383.35	981.92	0.39
2008-09	378.74	1330.10	0.28
2009-10	234.34	1540.25	0.15
2010-11	-210.21	1300.25	-0.16

Interpretation The above table shows that the return on equity is high for the year 2006 -07 because there is an increase in the values of PAT and networth. It is going to be decreasing slightly from the year 2006 to 2010 and it is negative in the year 2010-11 because the networth is higher than the PAT so it is negative.

Table 4.7: COST OF EQUITY:

YEAR	DIVIDEND(Rs)	SHARE PRICE(Rs)	GROWTH (ROE)(B)(%)	COST OF EQUITY(%)
2006-07	18.30	457.53	0.38	0.34
2007-08	25.16	457.53	0.93	0.99
2008-09	25.16	457.53	0.26	0.32
2009-10	25.16	457.53	0.14	0.20
2010-11	25.16	457.53	0.18	0.24

Interpretation: From the above chart the cost of equity during the year 2007-08 is high, how it means the growth of Kesoram Company is good, the share price and dividends are raised. In the year 2010-ii the cost of equity is decreased, why because the dividend and growth of the company has decreased.

Table 4.8: COST OF DEBT

YEAR	INTERST(Rs in crores)	PBIT(Rs in crores)	INTEREST(I)	I-T	COST OF DEBT(%)
2006-07	33.77	413.25	0.08	-32.77	-2.62
2007-08	54.26	674.39	0.08	-53.26	-4.26
2008-09	120.87	635.70	0.19	-119.87	-19.18
2009-10	109.21	663.58	0.16	-108.21	-17.3
2010-11	239.83	199.18	1.20	-138.83	-166.60

Interpretation: From the above table reveals that the interest component was increased during the study period from 2006 to 2012 and the tax rate was around on an average 34% and the cost of debt was low during the study period.

Table 4.9: COST OF RESERVE (Kr):

YEAR	BROKERAGE COST(B)(%)	I-B	KE	KR=(I-B)
2006-07	0.05	0.95	0.34	0.32
2007-08	0.05	0.95	0.99	0.94
2008-09	0.05	0.95	0.32	0.30
2009-10	0.05	0.95	0.20	0.19
2010-11	0.05	0.95	0.24	0.23

Interpretation

The above table shows the cost of reserve is high during the period of study 2007-08 where as cost of equity is 0.99 this shows that the company reserve position is good and it is providing good returns for shareholders and it is decreased in the year 10-11 because the cost of equity has been decreased to 0.23.

Table 4.10/WEIGHTED AVERAGE COST OF CAPITAL (WACC):

YEAR	CM	Ke	W1	Ke*w1	Kd	W2	W2*kd	kr	w3	Kr*w3	Wacc
2006-07	678.76	0.34	14.58	5.04	-2.62	-0.003	7.86	0.32	1.13	0.36	5.41
2007-08	803.43	0.99	17.57	17.39	-4.26	-0.013	0.05	0.94	0.86	0.81	17.40
2008-09	1087.58	0.32	23.77	7.60	-19.18	-0.172	3.29	0.30	0.85	0.36	8.03
2009-10	1590.68	0.20	34.77	6.95	-17.3	-0.103	1.78	0.19	1.06	0.20	7.25
2010-11	1887.59	0.24	41.31	9.91	-166.60	-6.83	1.13	0.23	1.51	0.35	17.09

Interpretation

The above table reveals that the weighted average cost of capital is high in the year 2010-11 is 17.09 why because the capital employed has been increasing consistently .and cost of equity also increasing and cost

of debt is negative and it is low in the year 2006-07 the capital employed is very low and cost o equity is 0.34.

Table 4.11:COST OF CAPITAL EMPLOYED

YEAR	CE(crs)	WACC(%)	Cost of capital employed(crs)
2006-07	678.78	5.41	3672.09
2007-08	803.43	17.40	13979.68
2008-09	1087.58	8.03	8733.26
2009-10	1590.65	7.25	11532.21
2010-11	1887.59	17.09	32258.9

Interpretation : The above table explains that the cost of capital employed is increasing moderately and it is very high in the year 2010-11 .because the capital employed is increasing and wacc also going to increase .and it is very low in the year 2006-7 why because during that period wacc and capital employed is low

Table 4.12/ECONOMIC VALUE ADDED

YEAR	NOPAT(Rs in crores)	COCE(Rs in crores)	EVA(crs)
2006-07	338.87	3672.09	-3333.22
2007-08	505.80	13979.68	-13473.88
2008-09	603.92	8733.26	-8129.34
2009-10	424.69	11532.21	-11107.52
2010-11	141.42	32258.9	-32117.49

Interpretation: From the above table observed that the Economic value added of the company was negative in the year 2006 because the cost of capital employed was more than Net operating profit after tax from the year 2006 to 2011 eva shows the negative values .why because cost of capital employed is more than the NOPAT.

Table 4.13: MARKET VALUE ADDED:

years	no.of outstanding shares	invested capital	mva
2007	45743	693.63	45049.37
2008	45743	1022.33	44720.67
2009	45743	1371.72	44371.28
2010	45743	1582.59	44160.41
2011	45743	1343.1	44399.9

Interpretation: The above table shows that the market value added kesoram cements is fluctuating over the period of study .it is very high during the year 2007.and it is very low in the year 2010.because it is high in the year 2007because the shares issued and invested capital is good so the market value of the company is high Comparison of EPS of select companies

years	jayalaxmi	Ultra-tech	sagar	Nagarjuna	Anjani portland	prism	india	Anjani	kakatiya
2008	36.56	80.94	23.21	9.10	8.87	8.10	22.62	343.02	21.74
2009	29.19	78.48	1097	8.83	9.07	3.23	15.30	15.28	15.28
2010	19.71	87.82	12.75	-3.49	6.36	4.99	11.54	14.86	14.86
20011	4.83	51.24	11.61	6.70	0.31	1.90	0.22	8.87	8.87

The above table shows that the earnings per share of the above companies shows that the Anjani portland cements shows highest value in their earnings pershare .and remaining companies are performing moderately but the nagarjuna cements shows decrease in their value

Comparison of EVA of select companies

years	jayalaxmi	Ultra-tech	sagar	Nagarjuna	Anjani portland	prism	india	Anjani	Kakatiya
2008	62251	319.69.1	44.85	-3198	13.83	-6.16	148	334.65	91.07
2009	408.62	-661.82	4701	-267.99	161	-151.16	1007	258.44	84.06
2010	-40.49	1287.74	4.71	23.29	25.15	-43.58	1373	269.66	73.99
20011	-408.56	-3751.34	-33.44	7.48	39.16	-179.38	1410	41.96	66.78

Interpretation: The above table shows that the economic value added of select companies the EVA of ultra tech cement is high during the period of 2008 and the economic value added of India cement is high during the 2011 when compared to the reaming companies.

Comparison of ROCE of select companies

years	jayalaxmi	Ultra-tech	Sagar	nagarjuna	Anjani portland	prism	india	Anjani	Kakatiya
2008	0526	1.464	1.555	0.480	0.473	0.796	0.596	0.960	0.227
2009	6.437	05.96	0.248	1.170	0.514	0.388	0.48	3.459	0.334
2010	0.354	0.4698	0.286	0.770	0.4698	0.699	6.214	3.799	6.177
20011	0.1005	0.272	0.143	1.469	0.272	0.221	0.040	1.249	0.062

Interpretation

The above table shows that the return on capital employed is very high in jayalaxmicement during the period of 2008 .the return on capital employed during the period of 2011 is consistently decreased among the all companies.

Comparison of RONW of select companies

years	jayalaxmi	Ultra-tech	Sagar	nagarjuna	Anjani portland	prism	India	Anjani	Kakatiya
2008	34.81	37.36	29.99	28.99	42.80	39.11	19.19	38.50	16.04
2009	21.48	36.22	8.563	23.17	28.84	14.54	11.96	29.87	17.02
2010	23.62	23.72	9.232	23.19	22.69	21.46	8.567	17.88	8567
20011	5.65	13.16	7.854	15.07	12.166	7.93	2913	0.903	1665

The above table shows that the return on network of select companies during 2011 is high when compared to previous years .the RONW of anjani Portland cement is very high during the period of 2009 to 10 .and sagar cement network is also high when compared to previous years

Correlations

		Retention ratio	Growth ratio	net operating profit after tax
Retention ratio	Pearson Correlation	1	.386	.839
	Sig. (2-tailed)		.522	.076
	N	5	5	5
Growth ratio	Pearson Correlation	.386	1	.351
	Sig. (2-tailed)	.522		.563
	N	5	5	5
net operating profit after tax	Pearson Correlation	.839	.351	1
	Sig. (2-tailed)	.076	.563	
	N	5	5	5
Return on network	Pearson Correlation	.913*	.601	.712
	Sig. (2-tailed)	.030	.283	.178
	N	5	5	5
Weighted average cost of capital	Pearson Correlation	-.555	.481	-.310
	Sig. (2-tailed)	.332	.412	.612
	N	5	5	5
Economic value added	Pearson Correlation	.931*	.178	.691
	Sig. (2-tailed)	.021	.775	.197
	N	5	5	5

Interpretation

In the above table shows that correlation coefficient of nopat and retention ratio the correlation – coefficient is 0.76 which indicates NOPAT is 100% and in the same direction changes in 76%.hence it is strongly co-related the correlation coefficient of growth and NOPAT is 0.43 if growth is 100% in the same direction cost of debt changes in 49%.the correlation coefficient of NOPAT and RONW it indicates co efficient 0.178 it indicates coefficient 0.178 it indicates the NOPAT is 100% in the same direction changes in return is 17%

Findings:

Return on equity of the company increased in the year 2006 – 2007 because of profit after tax was increased moderately except in the year 2011.Retention ratio of the company was fluctuating during the

study period because of fluctuating the dividend declaration of the company. Growth of the shares of the company was increased up to 2006 because of increase of increase of companies dividend per share and it is decreased in 2011 because retention ratio. Cost of equity was increased up to 2007 and in 2008 it was decreased of P_0 , D_0 and Growth of the shares. Economic value added explains the relationship between Net operating profit after tax and weighted average cost of capital. In the year 2010 – 2011 the Economic value added is negative because of NOPAT is lesser than the capital employed.

Suggestions:

The dividend per share of the company was decreased and it is low during the study period. Hence, it is suggesting that try to increase the Profit after tax for paying more dividends to the shareholders, which will helpful to attract the attention of investors towards company market shares During the study period only in the year 2008 the Cost of capital employed was decreased. So, try to follow the same policy for reducing the Cost of capital employed which helps to increase the value of Economic value added

Conclusion:

From the analysis it is found that the Net Operating Profit After Tax was more than the Cost Of Capital Employed, with that the Economic Value Added of the company is going to be negative year after year Except in the year 2011 Hence it is concluded that the company is not adding value to the shareholders. the market value added of kesoram cements is fluctuating any how the market value added of kesoram cements is good in market segment and attracting the investors to invest in the company by considering market value based measure.

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