PROFITABILITY ANALYSIS IN MADRAS CEMENTS LIMITED – A MULTI STAGE EARNINGS APPROACH

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Abstract

Cement Industry of India is one of the oldest in the country. The economic liberalization made all the cement making companies to expand capacity from later part of the last decade of 20th Century. Cement majors in the country started adding to capacity and faced the glut situation of excess capacity and lower demand during the beginning of 21st Century. Input cost escalation together with increased interest burden affected the top line and bottom line respectively. On account of the Government policy to boost infrastructure sector from mid part of the first decade of 21st century, the demand for the construction material had shown phenomenal growth and cement majors started earning sufficient return on investment. This study takes the second largest cement manufacturer in South India, Madras Cements Limited for 13 years between 1999-00 and 2011-12 and analysed the earnings at various stages from sales through contribution, operating profits and earnings before tax to evidence support to the glut and balanced phases by recording normal earnings performance and best performance at respective phases identified.

Keywords: Earnings, Contribution, Operating profit, Earnings before tax, Interest cover, Glut

Introduction

Cement Industry occupies a predominant role in the National economy from the viewpoint of economic development of a country. It ranked second next only to Iron and Steel Industry in the development of infrastructure facilities, which is the basic for any country to develop. Cement is an important ingredient for construction of bridge, lying of roads, preparation of cement tubes, making civil structures in manufacturing units, construction of houses, ports and the like. Limestone is the main raw material and the usefulness of the end product for construction purposes

made cement industry to grow abundantly in all parts of the world including our own Nation. By 2012, India stood in the volume of production next only to China. Six core industries namely, steel, cement, coal, crude, oil, electricity and petroleum products, Which are key inputs to infrastructure sector, and had a weight of 26.7 per cent in the overall Index of Industrial production (IIP), which showed the importance of the infrastructure sector for a fast developing economy.

Statement of the Problem

The nature of cement Industry has been cyclical in the 20th century and consequently the performance of cement industry was severely affected by the cyclical nature of the industry coupled with complete control and partial decontrol during the second half of 20th century. After complete decontrol in 1989 the demand supply dynamics of the industry underwent a sea change in volume but the cyclical nature persisted. Considering the cyclical nature of cement industry, the high degree of business risk as measured by operating leverage due to underutilized capacity, input cost escalation and financial risk as measured by financial leverage due to high debt capital and debt service burden affects the normal operation and profitability which posed a threat towards financial fundamentals of cement Industry. In the context of fluctuations in demand-supply situation, caused by growing demand and excess capacity combination, increase in operating and financing costs, analysis of earnings is deemed to be a perfect fit to focus the core areas of earnings of the firm under study in the industry.

Review of Literature

Rosemary (1987) studied financial performance of Madras Cements Limited and found better performance in liquidity and profitability in spite of increase in cost of critical inputs. Nalini (1990) and Muthukrishnan (2002) compared the financial performance of two leading cement companies in Tamilnadu, India Cements Limited (ICL) and Madras Cements Limited (MCL) and the former found better performance in ICL while later found MCL with better performance to notify change of fortunes among the companies in a decade. Rajagopalan (2009a) by developing a new model for analyzing profitability called 'Profitability Scoring Multiplier Model (PSMM)' and applying it on ICL to find poor profitability between 1997-98 and 2005-06 in different profit stages identified due to poor capacity utilization, increase in critical input costs, reduced sale prices and huge interest components. Rajagopalan (2009b) by developing a novel model

called 'Equivalent Cash Points Model (ECPM) to analyse cash flow performance and applying it on ICL to find mixed performance from poor through very good to excellent during 1998-99 to 2005-06 period. Rajagopalan and Vijayalakshmi (2013), Rajagopalan (2014) in separate studies analysed in detail cost of making and selling cement by the leading companies ICL and MCL for a period of 13 years between 2000-01 and 2012-13and found better performance in MCL in almost all cost components and defended the view that the unprecedented increase in cement prices was mainly due to input cost escalation and as a result ICL fared poor in Profitability when compared to MCL.

Selection of Company

For the purpose of the study, it is decided to select the company registered in Tamilnadu and leading the cement market. Out of seven companies (India Cements Limitetd, Madras Cements Limited, Chettinad Cement Corporation Limited, Tamilnadu Cements Corporation Limited, Dharani Cements Limited, Dalmia Cements (Bharat) Limited, and Grasim Cement Company Limited) having manufacturing plants in Tamilnadu, only the first five companies got registered in Tamilnadu. Out of five companies, India Cements Limited (ICL) was taken up for many studies by researchers based on the first ranking in largest cement manufacturing companies list in Tamilnadu and leading the cement markets for over a period of two decades. In the present study, the second largest player in cement, Madras Cement Limited is taken up since, the selected company also got involved in expansion of capacity in line with India Cements Limited driven by increased market demand.

Objective and Scope of the Study

The main objective of the study is to analyse profitability performance at different stages of earnings with related performance ratios. The study indents to analyze the earnings only up to taxable profit level of the selected cement company in Tamil Nadu and it does not cover the liquidity or solvency position.

Study period

The study period is 13 years from 1999-00 to 2011-12, as the real impact of the new economic policy on core sectors started and geared during the period and the company taken up for study got engaged in major expansion of capacity, which ultimately resulted in major changes in capacity, financing and earnings.

Methodology

The study is purely based on secondary data. The researcher collected data from the published financial statements in the Annual Reports of Madras Cements

Limited, journals, magazines, reports and web sites. For the purpose of earnings calculation, the annual reports were rearranged according to the requirements of respective earnings. For the purpose of calculating contribution, which is the difference between sales and variable costs, the sales figure in the annual reports was taken as it is. The variable cost classification is made by taking manufacturing costs net of inventory figures, depreciation charges and selling distribution expenses. The fixed operating cost is classified by taking staff salaries and amenities and all the administrative expenses reported in the annual reports. As the interest cost was given separately in annual reports under the specification finance cost, it was taken as such.

All the earnings parameters - sales, contribution, operating profits and earnings before taxes were reconciled with the taxable profit figure reported in financial statements. As far as the costs are concerned, classification made for purpose of analysis - Variable costs, fixed operating costs and fixed financing costs were also reconciled with the costs classified in the annual reports.

Frame Work of Analysis

For the purpose of making analysis of earnings, simple percentages, Compounded Annual Growth Rates (CAGR) and common size statements are used. In order to support the analysis, some vital ratios like Fixed assets to Total assets, Operating profits to Fixed assets, Interest Coverage Ratio, Debt-Equity Ratio, Average Interest Ratio, Earning Before Tax to Capital were also calculated. This part deals with providing a short profile of Madras Cements Limited and a detailed analysis of earnings by taking various earnings levels starting from sales through contribution, operating profits (EBIT) and taxable profits (EBT).

Profile of Madras Cements Limited

Madras Cements Limitted (MCL) is the flag ship company of Ramco Group - a well-known business group of South India and was established in 1957. It is based at Chennai. The company is eighth largest producer of cement in the country. The main product of the company is Portland cement manufactured through the five advanced production facilities and is the second largest cement producer in south India. The first plant of Madras Cements Ltd. (MCL) held at Ramasamy Rajanagar, near Virudhunagar in Tamilnadu commenced its production in 1962 with a capacity of 200 tones using wet process. In 70s, the plant switched over to more efficient dry process. A second kiln was also added to bring the total capacity to 12

lakh tons per annum. The second venture of Madras Cements Ltd. (MCL) was its Jayanthipuram plant near Vijayawada in Andrapradesh (AP) set up in 1987. The 16 lakh ton per annum plant employs the latest state of the art technology. In the year 1999 Madras Cements Ltd. (MCL) commissioned the most sophisticated ready mix concrete plant in Medavakkam in south Chennai. In 2002 a state of art dry mortar plant was commissioned near Sriperumpudur, Tamilnadu which manufactures dry mortar, cement based putty and tile fix compound in 2000, Madras Cements Ltd. (MCL) acquired Gokul Cements situated in Mathod in Karnataka.

Being an eco-friendly company, Madras Cements Ltd. (MCL) set up the Ramco wind form in 1993 at Muppandal Tamilnadu. This was followed by wind forms in Pollachi near Coimbatore in 1995 and Oothumalai in 2005. The combined capacity of these two put together is about 45mw. The third venture of Madras Cements Ltd. is at Alathiyur in Tamilnadu. The 30 lakh ton per annum plant is the respected cement plant in the country. Madras Cements Ltd. (MCL) is not only one of the most respected cement company in the country but also leads in giving the best returns for the investors with a cement capacity of 12.71 million tons per annum. In addition the company also operates one of the largest wind farms in the country. Ramco super grade is the most popular cement brand in south India.

Analysis of Earnings Parameters

As a first step in analysing earnings during the study period, a simple increase in all the parameters and the compounded annual growth rates were calculated and presented in the following table for the whole period, a six years period (2000-2005) and a seven years period (2006-2012) on the basis of growth rates identified.

Table 1

Growth in Earning Parameters

Particulars	Increase in Times	CAGR in %		
		Whole Period	2000-2005	2006-2012
Sales	6.34	15.27	6.27	18.26
Contribution	8.51	17.91	1.31	23.79
Operating Profit	9.0	18.42	-1.07	24.60
Earnings Before Taxes	29.78	29.83	12.6	25.00

Source: Computed from Annual Reports.

It is observed from the table that all the earning parameters have recorded growth during the study period. By taking the increase in absolute terms, sales had grown to 6.34 times. The growth in contribution was 8.51 times and a 9 time growth in operating profits is also observed. It is very interesting and surprising to note that taxable profit recorded an unbelievable 29.78 time increase. In order to have better understanding of the growth story, Compound Annual Growth Rate (CAGR) was also calculated and a 29.83% CAGR in taxable profits or earnings before taxes is somewhat phenomenal. It is followed by operating profit or earnings before interest and taxes which had a CAGR of 18.42%. A 15.27% CAGR in sales resulted in a CAGR of 17.97% in contribution, which is an indication of good operating performance.

The improvement in all earnings parameters did not happen evenly throughout the study period. The first six years of the study (2000-2005) showed a normal growth performance and hereinafter referred to 'Normal Growth Performance' period and to be mentioned as Phase I. A CAGR of 6.27% in sales resulted in only 1.31% CAGR in contribution and a negative growth of 1.07% is observed in operating profit. But a CAGR of 12.6% in taxable profit or earnings before taxes showed relatively same proportion of fixed finance cost to sales during Phase I.

A more important picture emerged out of the next 7 years period (2006-2012) and all the earnings parameters showed excellent growth performance. Sales recorded a CAGR of 18.26% and the growth of contribution of 23.79% is quite an indication of good variable cost management. A growth of 24.60% has been achieved in operating profits during this phase and growth is continued in taxable profit also with 25% indicating very good performance. For the purpose of further analysis, the 7 year period (2006-2012) hereinafter referred as Phase II, characterized by Super Normal Growth period in analyzing earnings of M/S Madras Cement Limited. In order to analyse the operating profits during the normal growth period, table 2 is presented.

Table 2

Common Size Operating Profit Statement – Normal Growth Period

(Rs. in Lakhs)

Year/ Particulars	2000	2001	2002	2003	2004	2005	Phase I
Sales	51655.00 (100)	61972.00 (100)	70934.00 (100)	63036.00 (100)	69981.00 (100)	74388.00 (100)	391966.0 0 (100)
Variable Cost	40635.00 (78.67)	46361.00 (74.81)	54647.00 (77.04)	4985.00 (79.08)	53045.00 (75.80)	62472.00 (83.98)	307010.0 0 (78.32)
Contribution	1102.00 (21.33)	15611.00 (25.19)	16287.00 (22.96)	13186.00 (20.92)	16936.00 (24.20)	11916.00 (16.02)	84956.00 (21.68)
Fixed Operating Cost	2834.00 (5.49)	3457.00 (5.58)	3716.00 (5.24)	3554.00 (5.64)	3864.00 (5.52)	4242.00 (5.07)	21667.00 (5.53)
Operating profit/ EBIT	8186.00 (15.85)	12154.00 (19.61)	12571.00 (17.72)	9632.00 (15.28)	13072.00 (18.68)	7674.00 (10.32)	63289.00 (16.15)
Installed Capacity (In Lakh Tonnes)	34.50	57.50	59.90	59.90	59.90	59.90	331.60
Production (In Lakh Tonnes)	27.17	26.51	31.78	35.24	37.00	38.10	195.80
Capacity Utilisation (%)	78.75	46.10	53.06	58.83	61.77	63.61	59.04
Sales Price Realisation/Tonne (Rs.)	1901.18	2337.68	2332.03	1788.76	1891.38	1952.44	2001.87
Variable cost/ Tonne (Rs.)	1495.58	1748.81	1719.54	1414.59	1433.65	1639.69	1567.98

Source: Computed from Annual Reports.

Figures in Parentheses denote percentages.

It is observed that sales and contribution showed improved performance except in the year 2003 and in general the operating profit got improved during the Phase. Variable cost proportion of 78.32% resulted in 21.68% contribution, which can be regarded as good performance. An operating profit margin of 16.15% was made possible on account of a low loading of fixed cost which is accounted for 5.53% of sales. An average sales price realization of Rs. 2001.88 per tonne with 1567.88 per tonne variable cost left Rs. 434.00 as contribution, which can be considered as good variable cost management. This phase had only 59% capacity utilization indicating the glut situation in market.

The increase in capacity from 34.50 lakhs tonnes to 59.9 lakhs tonnes during the period increased the fixed operating cost from Rs 28,34 lakhs to Rs 42,42 lakhs. But a good sales price realization with a relatively low variable cost portion of sales, the operating profits recorded improvement during this phase.

Considering the years 200-2005 individually the variable cost proportion ranged between 74.81% and 83.98% and the contribution margin ranged between 16.02% and 25.19%. it was mainly due to decrease in sales realization per tonne which was Rs. 2337.68 in 2001 thereby got gradual reduction and showed some improvement of Rs. 1952.44 per tonne during the year 2005. A better contribution performance was made possible only by having an excellent variable cost proportion to sales as it ranged between Rs. 1414.59 per tonne in 2003 and 1748.81 per tonne in 2001. The interesting aspect is to be noted that the years of poor performance in capacity utilization and sales price realization (2003 and 2004) showed lowers variable cost proportion which an indication of better direct cost management.

The operating profit margin which ranged between 10.32% and 19.61% during this phase was made possible because of a relatively lower fixed operating cost range of 5.24% to 5.70%. Except the year 2005, all the other years recorded more than 15%operating profits.. The year 2005 was characterized by the highest variable cost proportion of 83.987% recorded lowest operating margin during this phase. By and large, except year 2005, this phase evidenced normal growth performance in all operating earning parameters for the company. In order to analyse the taxable profits during the normal growth period, table 3 is presented.

Table 3

Common Size Earnings before Tax Statement – Normal Growth Period

(Rs. in Lakhs)

Year / Particulars	2000	2001	2002	2003	2004	2005	Phase I
Operating profit/ EBIT	8186.00 (15.85)	12154.00 (19.61)	12571.00 (17.72)	9632.00 (15.28)	13072.00 (18.68)	7674.00 (10.32)	63289.00 (16.15)
Fixed Financing Cost	6244.00 (12.09)	6721.00 (10.85)	7924.00 (11.17)	6772.00 (10.74)	5118.00 (7.31)	3716.00 (5.00)	36495.00 (9.31)
Earnings before Taxes	1942.00 (3.76)	5433.00 (8.77)	4647.00 (6.55)	286.00 (4.54)	7954.00 (11.37)	3958.00 (5.32)	26794.00 (6.84)

Source: Computed from Annual Reports.

Figures in Parentheses denote percentages.

This phase recorded good taxable profit performance and with an operating profit margin of 10.15% it resulted in 6.84% with a 9.3% loading of fixed financing cost & interest charges. The operating profits in absolute term got improved from Rs.8186 lakhs in 2001 to 12571 lakhs in 2002 and reduced to Rs 9632 lakhs in 2003 and again in 2004 it is improved to Rs. 13072 lakhs and got reduced to Rs. 7674 lakhs in 2005. Therefore the first three years recorded increase in taxable profit and the last three years 2003, 2004 and 2005 were characterized by fluctuation in taxable income. The fixed interest cost ranged between 10.74% and 12.09% during the first four years (2000-2003), and thereafter got reduced to 7.31% in 2004 and 5% in 2005, which is on indicating of reduction the financial risk by reducing the interest component. A very good operating performance during this phase had not end up with good performance in taxable incomes due to heavy loading of fixed financing cost and in the years 2004 and 2005, the company was in a position to reduce the interest burden thereby balanced its bottom-line performance. In order to analyse the operating profits during the super normal growth period, table 4 is presented.

Table 4

Common Size Operating Profit Statement – Super Normal Growth Period

(Rs. in lakhs)

Year/ Particulars	2006	2007	2008	2009	2010	2011	2012	Phase II
Sales	101312.00 (100)	158085.00 (100)	202048.00 (100)	254512.00 (100)	281813.00 (100)	264641.00 (100)	327784.00 (100)	1590195.00 (100)
Variable Cost	80253.00 (79.21)	97612.00 (61.75)	125209.00 (61.97)	179166.00 (70.40)	197074.00 (69.93)	207167.00 (78.28)	233987.00 (71.38)	1120468.00 (70.46)
Contribution	21059.00 (20.79)	60473.00 (38.25)	76839.00 (38.03)	75346.00 (29.60)	84739.00 (30.07)	57474.00 (21.72)	93797.00 (28.62)	469727.00 (29.54)
Fixed Operating Cost	5235.00 (5.71)	813.00 (5.14)	11343.00 (5.61)	13866.00 (5.45)	16524.00 (5.86)	16964.00 (6.41)	20055.00 (6.12)	92117.00 (5.79)
Operating profit/ EBIT	15824.00 (15.62)	52343.00 (33.11)	65496.00 (32.42)	6148.00 (24.16)	68215.00 (24.21)	4051.00 (15.31)	73742.00 (22.50)	377610.00 (23.75)
Installed Capacity (In Lakh Tonnes)	59.90	59.90	79.80	99.90	104.90	104.90	104.90	614.20
Production (In Lakh Tonnes)	47.11	56.69	58.45	65.26	80.26	73.04	75.22	453.03
Capacity Utilisation (%)	78.65	94.64	73.25	65.33	76.51	69.63	71.71	73.76

Sales Price Realisation/Tonne (Rs.)	2150.54	2788.59	3456.77	3899.97	3511.25	3623.23	4357.67	3487.04
Variable cost/ Tonne (Rs.)	1730.52	1721.86	2142.15	2745.42	2455.46	2836.35	3110.70	2457.00

Source: Computed from Annual Reports.

Figures in Parentheses denote percentages.

The increased production capacity to 104.90 lakhs tonnes had the result of increase in fixed operating cost from Rs. 4242 lakhs to Rs. 20055 lakhs during this phase. An average capacity utilization of 68.60% can be considered still low but with an average sale price realization of Rs. 3487.04 and variable cost Rs. 2457.00 per tonne, the contribution per tonne was placed at a high Rs. 1030.04. The proportion of fixed cost to sales was at 5.79% only thereby resulted in a very good operating margin of 23.75%

It recorded an operating profit margin of 23.75% on an average on account of reduction in variable cost proportion to 70.46% thereby resulted in a contribution of 29.54% which can be regarded as a very good performance in terms of improvement in contribution margin. The fixed cost portion of only 5.79% enabled the company to record 23.75% operating profits during this (2006-2012) phase.

The phase II super normal growth period was mainly featured by increase in capacity from 59.90 lakh tonnes to 104.90 lakh tonnes and with an average capacity utilization which stood at improved 73.76%.

Considering the 7 years individually, sales got increased both in volume and value. The increase recorded in production and sales with improved price realization per tonne from Rs. 2150.54 per tonne to Rs. 4357.67 per tonne and stabilized variable cost per tonne which was Rs. 1703.52 in 2006 was controlled below Rs. 2900 level up to 2011 resulted in improved contribution. An increase of variable cost per tonne of Rs. 3110.70 is noted in terminal year. This was resulted in an improvement in contribution margin which ranged between 20.79% and 38.25%. The variable cost proportion of sales ranged between 61.75% and 79.21% was the main reason for improved contribution margins. The proportion of fixed operating costs to sales ranged between 5.14%, 6.41% which is an indication of lower increase in fixed

operating cost in proportion to increase in sales.

By and large the Super Normal Growth period, (2006-2012) recorded very good operating profit margin ranged from 15.31% to 33.11%. This was made possible by having higher sales price realization with increased sales levels and control over variable cost together with a lower disproportional increase in fixed cost. As a result the operating profit margin improvement, this phase can be regarded as a period properly supported by market conditions and a very good direct-cost management.

In order to analyse the taxable profits during the super normal growth period, table 5 is presented.

Table 5

Common Size Earning Before Tax Statement – Super Normal Growth Period

(Rs. in Lakhs)

Year / Particulars	2006	2007	2008	2009	2010	2011	2012	Phase II
Operating profit/ EBIT	15824.00 (15.62)	52343.00 (33.11)	65496.00 (32.42)	6148.00 (24.16)	68215.00 (24.21)	4051.00 (15.31)	73742.00 (22.50)	377610.00 (23.75)
Fixed Financing Cost	363.00 (3.58)	2553.00 (1.61)	5245.00 (2.60)	11073.00 (4.35)	15153.00 (5.38)	1399.00 (5.29)	15918.00 (4.86)	67502.00 (4.25)
Earnings before Taxes	12194.00 (12.04	4979.00 (31.50)	60251.00 (29.82)	50407.00 (19.81)	53062.00 (18.83)	2652.00 (10.02)	57824.00 (17.64)	310048.00 (19.50)

Source: Computed from Annual Reports.

Figures in Parentheses denote percentages.

It is observed that the earning before taxes for the period was 19.50% of sales which is achieved by both increase in operating profit of 23.7% and reduced fixed financing cost proportion of 4.25% to sales. A near 7% increase in operating margin over phase-I did the wonders for Madras Cement Limited. When considering the years in this period individually, the fixed financing cost got increased from 363 lakhs in 2006 to 15918 lakhs in 2012. In spite of this, the taxable income also got improved because of a major turnaround during this phase, which resulted in excellent improvement in contribution and operating margin. In absolute amount, the taxable income of the company which was only Rs. 3958 lakhs in 2005, end up with Rs. 57824 lakhs in 2012 and featured by gradual increase except in the year 2011.

In continuation of the analysis of earnings based on common size statement in the normal growth period, some other important operating as well as financial variables are considered to have a better idea over the operating profits and taxable profits and are presented in table 6

Table 6

Earnings Parameters with Related Ratios – Normal Growth Period

Years /Particulars	2001	2002	2003	2004	2005
Operating Profits/ EBIT (Rs. in lakhs)	121.54	125.71	96.32	130.72	76.74
Fixed Assets to Total Assets (%)	58.20	60.06	58.80	57.00	51.35
Operating Profit to Fixed Assets (%)	13.03	12.48	9.78	14.00	3.73
Taxable Profits / EBT (Rs. in lakhs)	54.33	46.47	28.6	79.54	39.58
Debt to Equity (Times)	2.02	3.73	1.86	3.14	3.02
Interest Coverage Ratio (Times)	1.81	1.59	1.42	2.55	2.07
Average Interest to Debt (%)	10.26	10.01	10.18	8.97	6.86
Earnings Before Taxes to Capital (%)	5.01	4.60	2.90	8.66	4.30

Source: Computed from Annual Reports

It is observed that the fixed assets proportion to total assets ranged between 51.35% and 60.06% during the period which showed changing mix of fixed asset with current assets. The operating profit to fixed assets showed declined performance to end with 3.73% from a 13.03% in 2001.

The key financial indicators revealed that the debt-equity ratio got increased from 2.02 times to 3.02 times but the average interest cost was reduced from 10.29% in 2001 to 6.85% in 2005. It has resulted in an improved interest cover from 1.80 to 2.07 at the end. The taxable profit to

capital was reduced from 5.01% to 4.30 % in 2005.

In continuation of the analysis of earnings based on common size statement in the super normal growth period, some other important operating as well as financial variables are considered to have a better idea over the operating profits and taxable profits are presented in table 7

Table 7

Earnings Parameters with Related Ratios – Super Normal Growth Period

Years /Particulars	2006	2007	2008	2009	2010	2011	2012
Operating Profits/ EBIT (Rs. in lakhs)	158.24	523.43	654.96	614.8	682.15	405.1	737.42
Fixed Assets to Total Assets (%)	51.43	44.50	55.66	60.35	57.33	60.52	58.48
Operating Profit to Fixed Assets (%)	15.81	41.57	26.38	16.91	17.00	9.02	15.84
Taxable Profits / EBT (Rs. in lakhs)	121.94	497.9	602.51	504.07	530.62	265.2	578.24
Debt to Equity (Times)	2.53	1.91	2.48	2.64	2.34	2.25	1.93
Interest Coverage Ratio (Times)	4.36	20.50	12.50	5.55	4.50	2.90	4.63
Average Interest to Debt (%)	5.70	4.91	3.51	3.85	5.20	5.45	6.27
Earnings Before Taxes to Capital (%)	12.1	36.72	23.16	13.45	12.79	5.83	13.81

Sources: Computed from Annual Reports.

It is observed that the proportion of fixed assets to total fixed assets showed a fluctuating scenario and ranged from a low of 44.5% in 2007 to 60.52% in 2011. But the year 2011 recorded the lowest operating profit to fixed assets both due to reduction in operating profits and increased fixed assets proportion in total assets. In all the other years, very good operating profit to fixed assets was observed, and in 2007 it was the highest (41.57%) as a result of low proportion in total assets and improved operating profits.

The key financial variables revealed that debt-equity ratio during this period also got fluctuated between 1.91 and 2.64, but the average interest cost to debt had reduced considerably as the company had an average cost of 5.7% which was then prevailed around 3% - 4% and end up with 6.27% at the terminal year. Due to reduction in average interest costs and improved operating profits, the company had a very good cover for interest which was between 4.36 times and 20.50 times during the period. Taxable profits also got

improved on account of reduced interest costs and it ranged between 3.6% and 17.61% during the period.

Conclusion

The earnings in different stages – Starting from sales through operating profits and to taxable profits had shown multifold increase on account of improved contribution margins throughout the study period. Control of fixed operating cost within a range of 5-6 percent and a reduced proportion of fixed financing cost to sale from 12 percent to 4.86 per cent made the improvement in earnings parameters considered. The second phase (2006-2012) showed tremendous performance when compared to the first phase (2000-2005) and it reflected a balanced demand supply situation in phase II from glut during the initial period of study.

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