ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 8, Issue, 12, pp.43967-43972, December, 2016

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

AN ANALYSIS OF DU-PONT CHART WITH REFERENCE TO A SELECTED COMPANY IN INDIA

***Dr. Pradip Kumar Das**

Associate Professor and Teacher in Charge, Commerce Unit, Jagannath Kishore College, Purulia (West Bengal), India

ARTICLE INFO

Article History:
Received 25th September, 2016
Received in revised form
22nd October, 2016
Accepted 10th November, 2016
Published online 30th December, 2016

Key words:

Du-Pont Chart, Profitability,
Profit Margin, Operating Cost,
Operating Profit, Assets Turnover.

ABSTRACT

Du-Pont Chart is an operationally useful tool for evaluating profitability of the business activities. Analytic chain in this chart is developed along with two-tier i.e. profit margin and assets turnover. The operating efficiency i.e. profitability of ACC Ltd. (formerly known as The Associated Cement Companies Limited), a leading cement company in India has been judged with the help of Du-Pont Chart or analysis during the period of ten years from 2006 to 2015.An examination of the first tier shows that profit margin of the selected company decreased over time; growth of profit was also less than the growth of investment in the company. Although high operating cost somehow affected the operating profit, profit margin decreased but sales increased over the period in the company under study. The second tier i.e. assets turnover shows that in all cases, the selected company had turnover more than its investment. Thus, the study based on Du-Pont Chart or analysis does not reveal overall satisfactory operating efficiency i.e. profitability in ACC Ltd.; still there is a need to control on operating cost. Management should utilize assets more efficiently and judiciously so that increase in production as well as in sales is possible.

Citation: Pradip Kumar Das, 2016. "An analysis of du-pont chart with reference to a selected company in India", *International Journal of Current Research*, 8, (12), 43967-43972.

INTRODUCTION

Du-Pont Chart is an operationally useful tool for evaluating profitability of the business activities. Analytic chain in this chart is developed along with two-tier i.e. profit margin and assets or investment turnover. First tier shows the details underlying the profit margin ratio. An examination of this ratio may indicate where cost reductions may be effected to improve the profit margin. Second tier throws light on the determinants of the assets turnover ratio. With the help of this tier, a deeper insight can be gained into efficiencies or inefficiencies of assets utilisation. Improvement or operational efficiency can be accomplished either through the profit margin sequence or through the turnover sequence. Du-Pont analysis, a system of financial analysis helps in understanding profitability (i.e. return on investment or capital employed) in terms of profit margin and assets turnover. Return on investment or capital employed shows the combined effect of the profit margin and the assets turnover. Such decomposition also shows how return on investment is influenced by these two sequences. A systematic blending of the two-tier i.e. profit margin and assets turnover into a profitable combination is a challenging task for the management. Hence, a great deal of attention must be given to such decomposition to judge the operational efficiency or otherwise of a company since such a system of analysis has received widespread recognition and acceptance by many companies in some or the other. It is in this context that a modest effort has been made in this paper to measure the operating performance of ACC Ltd., (formerly known as The Associated Cement Companies Limited), a leading cement company in India with the help of Du-Pont Chart or analysis during the period of ten years from 2006 to 2015.

****Corresponding author: Dr. Pradip Kumar Das,***
Associate Professor and Teacher in Charge, Commerce Unit, Jagannath Kishore College,

Objectives of the study

The present study attempts to achieve the following three broad objectives:-

1. To find out whether fixed assets are properly utilized or not by ACC Ltd.
2. To find out whether ACC Ltd. has been able to increase its sales in comparison to its investments.
3. To analyse the cost minimization efficiency of ACC Ltd., in comparison with its total sales.

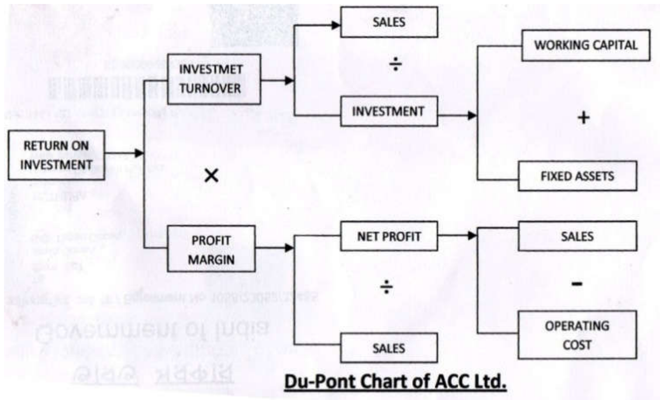
Data and Methodology

The researcher being an external analyst has to depend mainly upon the secondary data for the purpose of the present study. Hence, the data and information required for the study have been collected mostly from the annual reports, accounting records etc. of the company for the period from 2006 to 2015. This moderately lengthy period of ten years has been adopted for arriving at meaningful and purposeful inferences. A few information has also been collected from the website of the company. Though there was found apathy or indifference on the part of the executives in supplying information, the researcher could overcome the same through moral persuasion and intensive pestering. It was made clear to them that the information so collected will be exclusively used for academic purpose and proper secrecy will be maintained. Editing, classification and tabulation of the financial data collected from the above-mentioned sources have been done as per the requirement of the study. In order to facilitate uniformity in data, years have been readjusted and the data have been recast. The figures collected from the sources have been rounded off to two decimals. The data available have been translated into a pre-designed structure format so that a meaningful interpretation could be made. With a view to knowing the operating performance of the selected company, the present paper makes assets turnover and profit margin or profit on sales analysis of the magnitude of two-tier over the period of study. For the analysis of Du-Pont Chart, ratios with assets or investment turnover and profit margin have been worked out. Various statistical techniques like average, percentage, growth rate, etc. have been adopted at appropriate places to analyse the data and derive meaningful results. The study has been presented in four sections. Section-I deals with relevant conceptual framework. Section-II relates to the introduction of ACC Ltd., the selected company. Du-Pont analysis of the selected company forms the subject matter of Section-III. Finally, Section-IV contains conclusion of the results drawn as also the suggestions offered during the course of study for improving the operational efficiency of the selected company.

Section-I

Concept of Du-Pont Chart

Du-Pont Control Chart is a mechanism of management control developed by E.I. Du-Pont De Nemours & Co., Welmington, U.S.A. in 1959. It is an operationally useful tool for evaluating profitability, inter industry, inter corporation, inter product etc. (Gupta, 1990). Management can thus analyse the profit performance of an organisation through mechanics of profit path as pioneered by the Du-Pont organisation. A Du-Pont Chart makes use the interrelationship that exists between various ratios in the form of chart for drawing better managerial attention. A comparison can be made between the standard ratios and the computed ratios of the company to judge its performance. For providing standards of evaluation, calculations are made of the ratios of return on investment, assets turnover and profit margins for comparable companies (Howard and Upton, 1961). Du-Pont Control Chart is very helpful for internal management of a business enterprise. Du-Pont Chart is mainly based on two-tier i.e. profit margin and assets or investment turnover. Since Du-Pont Control Chart provides a clear picture before management in respect of two-tier approach of profit generation, it is considered as an important tool for better co-ordination and control of management. The earning power, represented by return on capital employed (ROCE), shows the combined effect of the profit margin and the investment turnover. The first sequence starts with the profit margin, calculated by dividing net profit by sales; net profit equals sales less expenses, and expenses include works expenses, administrative expenses, selling and distribution expenses. In the second tier the sequence starts with turnover, determined by dividing sales by total investment. Profit margin multiplied by investment turnover results in Return on Investment (ROI) or Return on Capital Employed (ROCE) (Gupta, 1990). ROI and ROCE will increase with improvement in both these two sequences and vice versa. The two-tier approach concentrates attention on the separate forms contributing to profit. A number of factors contribute a great deal to the final rate of return of investment or capital employed. Any change in these factors will be reflected in the final rate. In addition, any change in one with slight change in other will also have an impact on ROI. Du-Pont Chart of ACC Ltd. is exhibited below:-



Du-Pont Chart of ACC Ltd.

ROI is a yardstick to measure operating efficiency of a business enterprise. This would provide sufficient insight into how efficiently the long-term funds of owners and creditors are being used (Khan and Jain, 1983). Net profit shows the efficiency with which assets of a business are employed. Any improvement in such efficiency can be accomplished either through more effective use of available capital, measured by the turnover sequence or through a better relationship between sales and expenses or costs, measured by the profit margin sequence. Profit margin is a measure of overall profitability (Kuchhal, 1977). Profit margin aims at minimizing cost through cost control programme while investment turnover aims at increasing sales through minimum employment of investment in fixed assets. Control over investment in fixed assets and working capital without adversely affecting the sales enables a firm or a company to raise its investment turnover. Such decomposition helps in understanding how the return on investment is influenced by the profit margin and the assets turnover ratio. Management with the help of this Chart identifies the strong and weak areas and takes remedial steps to maintain the desired or optimum level of both the sequences. Identification of the contributory areas is also done if improvement in any of the two sequences is forecasted. Thus, Du-Pont Chart helps improve the moral of that particular department.

Section-II

An Introduction to ACC Ltd.

ACC Ltd. (formerly known as The Associated Cement Companies limited) commenced its business operation in 1936 and continues to be India's foremost cement manufacturing company. The company has strength of about 8400 workforce with 17 modern manufacturers of cement and a vast distribution network of over 9000 dealers and a countrywide spread of sales offices. Corporate Social Responsibility (CSR) is one of the guiding principles of ACC Ltd. right from its inception. For improving the quality of life of its employees and of the community in which it operates, ACC Ltd. places utmost emphasis on safety of its workmen and organizes Health Camps in the proximity of its various manufacturing centres. The Five Star Safety Management System as per the British Safety Council is in all the manufacturing centres. Annual Safety Audits are carried out by external agencies. The company's commitment to protecting and improving the environment extends beyond normal regulatory requirements. The activities of the Research and Development (R & D) centre continue to be focused on the company's core business of cement to achieve improvement mainly in the areas of raw material utilisation, process improvement, energy conservation, enhanced usage of blending materials, improved technology and development of high performance concretes mortars and grouts. ACC Ltd. has opened "ACC Help Centres" at various locations in the country to provide guidance and advice on correct construction practices to prospective house builders. The company is also participating in rural markets/mandis in different parts of the country and has launched an initiative called "Project Sambandh" to further strengthen its marketing channel and it would continue to strive to provide market leadership in the cement industry. ACC Ltd. plans to retain its growth momentum by continuing to focus on markets which have long-term growth potential with low per capital consumption and high pent up demand. The company has taken up various expansion and modernization projects to enhance its capacity. The broad geographic diversification in various regions with different market dynamics and continued modernization and expansion programme allows ACC Ltd. to sustain growth and profitability. ACC Ltd. has entered into agreement with many foreign countries for technical consultancy services, rehabilitation & modernization programme, management of its cement plant etc. ACC Ltd., thus, earns huge foreign exchanges through providing consultancy services for the overseas markets during the year. The company successfully explores ways to make its business more planet-friendly and this concern is concerned with all activities of the value chain from mining to sales. It was among the first Indian companies to include commitment to environmental protection as one of its corporate objectives and offers effective solutions for waste management including testing and co-processing. Recently, the CII-ITC Centre of Excellence in Sustainable Development cited ACC Ltd. as a role model in conducting business sustainably, felicitating it with India's most coveted honours in this field:- India's Most Sustainable 2015, Sustainable Plus Platinum Label of CII-ITC and CII-ITC sustainability Award 2015. The company's various manufacturing units are backed by a central technology support services centre- the only one of its kind in the Indian Cement Industry.

The Corporate Human Resources Development of ACC Ltd. is committed to improve employee satisfaction through regular surveys. The company participates in the nationwide effort to combat the HIV/AIDS virus and has become the first Indian corporate house to set up an Anti Retroviral Treatment (ART) Centre in Wadi, Karnataka with full equipments as prescribed by guidelines of the National AIDS Control Organisation (NACO) for the treatment of people affected by HIV/AIDS. ACC Ltd. is thus planning a meaningful role and has introduced a workplace policy that guarantees and safeguards the rights of these affected people. With the Indian economy expected to maintain its momentum, ACC Ltd.'s continuing initiatives for improvement in efficiencies, plant utilization and planned capacity additions should enable it to maintain healthy growth of its financials.

Section-III

Tools of Analysis

The analysis of Du-Pont Control Chart is made on the basis of profit margin and investment turnover. This analysis throws light on operating profit, operating expenses and sales. It deals with how to increase the operating efficiency as well as profit margin. The second segment is assets or investment turnover; this segment mainly highlights whether assets are properly utilized or not in the business or a company possesses sufficient funds. In addition, it also judges the overall efficiency of the business in a company so that a company or a business enterprise can do better internal and external arrangement and that the fixed assets can be more effectively utilized to increase the profit of a company or a business enterprise.

Explanation (Table- I) :- Table-I shows investment turnover or assets turnover ratios of ACC Ltd. This ratio measures the efficiency with which a firm is utilizing its investment in generating sales from all financial resources committed to it. With the increase in this ratio, more revenue is generated per rupee of total investment in assets and vice-versa. A higher ratio would mean better utilization and vice-versa (Srivastava, 1993). The firm's ability to produce a large volume of sales on a small investment is an important part of the firm's overall performance in terms of profit. Idle or improperly used assets increase the firm's need for costly financing and the expenses for maintenance and upkeep. Generally, a high investment turnover ratio indicates efficient utilisation of investment in generating sales while a low ratio is indicative of poor utilisation and inefficient management of investment. It, thus, indicates excessive investment or otherwise in comparison with the volume of sales. The ratios were 1.71 times, 1.85 times, 1.51 times, 1.30, times, 1.18 times, 1.43 times, 1.80 times, 1.72 times, 1.53 times, 1.49 times in the years, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, and 2015 respectively. Thus the ratio varied from 1.18 times in 2010 to 1.85 times in 2007. The average of sales was Rs. 8987.40 crore and of investment was Rs. 5875.60 crore. The average of the ratio worked out to 1.55 times which infers that the selected company earned rupees 1.55 for every rupee invested as capital. A further study of the ratios reveals that ACC Ltd. did not make a fairly good use of its assets. Though the company had turnover more than its capital employed which might be satisfactory for the company but the growth rate of sales (i.e. 97%) was poor as compared to the growth rate of investment (i.e. 125%). This might be due to large outlays on assets or investments as compared to sales.

Explanation (Table-II):- Table-II shows profit margin of ACC Ltd. Profit margin, also sometimes referred to as the net income percentage or the return on sales, is a measure of overall profitability. It varies with the disproportionate variations in sales revenue in comparison with costs or vice versa. Thus, costs remaining the same, if the management decides to mark-up or mark-down the price per unit, profit margin will go up or down accordingly. On the contrary, price per unit remaining the same, if the management succeeds in bringing the downward variations in all or some of the components of the cost structure, the result will be an upward change in the margin of profit on sales. Hence, profit margin can be increased by marking up prices or by reduction in costs or by both. It should not be kept in mind that neither the price mark-up nor does the cost reduction depend on the sole discretion of those managing a business enterprise. Rather, forces of 'free competition' in a free economy and 'public interest' in a controlled economy place limits on the managerial discretion to mark-up price at will and on the other, inflation makes it rather impossible to check the cost escalations.

Table I. Statement showing Investment Turnover (or Assets Turnover) of ACC Ltd.
(Rs. In Crore)

Name	Year (from 2006 to 2015)										$\overline{X}$	Growth
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
Sales(Rs.)	5803	6905	7126	7967	7710	9430	11130	10889	11481	11433	8987.40	97%
Investment(Rs.)	3396	3741	4717	6113	6548	6573	6175	6324	7513	7656	5875.60	125%
Ratio(Times)	1.71	1.85	1.51	1.30	1.18	1.43	1.80	1.72	1.53	1.49	1.55	

Source: - Annual Reports, Website, Results computed.

Table-II. Statement showing Profit Margin in ACC Ltd.
(Rs. In Crore)

Name	Year (from 2006 to 2015)										$\overline{X}$	Growth
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
Profit Before Interest & Tax(Rs.)	1717	1993	1899	2644	1812	1921	2196	1629	1507	1537	1885.50	10%
Sales(Rs.)	5803	6905	7126	7967	7710	9430	11130	10889	11481	11433	8987.40	97%
Profit Margin (%)	30	29	27	33	23	20	20	15	13	13	23	

Source: - Annual Reports, Website, Results computed.

Table III. Statement showing Profit Margin, Assets Turnover and Return on Capital Employed of ACC Ltd.

Name	Year (from 2006 to 2015)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Profit Margin (%)	30	29	27	33	23	20	20	15	13	13
Assets Turnover(Times)	1.71	1.85	1.51	1.30	1.18	1.43	1.80	1.72	1.53	1.49
Return on Investment or Capital Employed (%)	42	42	35	39	22	22	24	16	14	11

Source: - Annual Reports, Website, Results computed.

Table IV. Statement showing Return on Investment or Capital Employed in ACC Ltd. (Rs. In Crore)

Name	Year (from 2006 to 2015)										$\overline{X}$	Growth
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
Profit Before Interest & Tax(Rs.)	1717	1993	1899	2644	1812	1921	2196	1629	1507	1537	1885.50	(-) 10%
Investment(Rs.)	3396	3741	4717	6113	6548	6573	6175	6324	7513	7656	5875.60	125%
Return on Investment or Capital Employed (%)	42	42	35	39	22	22	24	16	14	11	27%	

Source: - Annual Reports, Website, Results computed.

Table V. Statement showing Sales, Operating Cost and Operating Profit in ACC Ltd. (Rs. In Crore)

Name	Year (from 2006 to 2015)										$\overline{X}$	Growth
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
Sales(Rs.)	5803	6905	7126	7967	7710	9430	11130	10889	11481	11433	8987.40	97%
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)		
Operating Cost (Rs.)	4086	4912	5227	5323	5898	7509	8934	9260	9974	9896	7101.90	142.19%
	(70)	(71)	(73)	(67)	(77)	(80)	(80)	(85)	(87)	(87)		
Operating Profit Before Interest & Tax (Rs.)	1717	1993	1899	2644	1812	1921	2196	1629	1507	1537	1885.50	(-) 10%
	(30)	(29)	(27)	(33)	(23)	(20)	(20)	(15)	(13)	(13)	(23)	

Source: - Annual Reports, Website, Results computed.
N.B.:- Figures in parentheses indicate percentage.

Table VI. Statement showing Fixed Assets, Working Capital and Capital Employed in ACC Ltd. (Rs. In Crore)

Name	Year (from 2006 to 2015)										$\overline{X}$	Growth
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
Fixed Assets (Rs.)	3396	3741	4717	6113	6548	6573	6175	6324	7513	7656	5875.60	125%
	(87)	(84)	(87)	(93)	(94)	(85)	(82)	(80)	(91)	(91)		
Working Capital (Rs.)	517	718	693	470	445	1130	1371	1536	723	787	839	52%
	(13)	(16)	(13)	(7)	(6)	(15)	(18)	(20)	(9)	(9)		
Capital Employed (Rs.)	3913	4459	5410	6583	6993	7763	7546	7860	8236	8443	6715	116%
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)		

Source: - Annual Reports, Website, Results computed.
N.B.:- Figures in parentheses indicate percentage.

These constraints restrict efforts towards widening of profit margin. However, better organisation, technical innovations and more effective administration are some of the ways which can help in improving profit margin within limits. A high ratio is an indication of high profit margin and vice versa. The profit margins were 30%, 29%, 27%, 33%, 23%, 20%, 20%, 15%, 13% and 13% in 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, and 2015 respectively. The average of the ratios was 23%. Thus profit margin showed fluctuating trend in the years under reference. It fluctuated from 13% in 2014 & 2015 to 33% in 2009. Profit margin decreased from 30% in 2006 to 13% in 2015; it fell steeply in the year 2014 and 2015. The average of profit before interest & tax was Rs. 1885.50 crore and of sales was Rs. 8987.40 crore. While analyzing the growth rate, it is observed that the growth of profit before interest & tax was (-) 10% and of sales was 97% indicating a low growth rate and earnings more and more by ACC Ltd. with passage of time. The financial manager should detect the causes of a falling profit margin and take immediate action to improve the situation.

Explanation (Table-III):- Table-III shows profit margin and assets turnover of ACC Ltd. of ten years from 2006 to 2015. Return on investment or capital employed measures the overall performance of management and profitability of a business. If it is too low in a particular division, a probe may be made to bring out the causes of low return. It is calculated by dividing profit before interest & tax by capital employed. This rate is the end-profit of a series of quantitative variables representing different interconnected or interdependent factors of business operations (Krison, 1975). Profit margin revealed a decrease from 30% in 2006 to 13% in 2014 and 2015; it was highest in 2009 and least in 2014 and 2015. On the other hand, assets turnover ratio also revealed a decrease from 1.71 times in 2006 to 1.49 times in 2015. The highest ratio was in 2007 and lowest in 2010. In addition to the aforesaid reasons, low profit margin might be for other reasons also such as higher cost of goods sold due to the company's inability to purchase at favourable terms, inefficient utilization of assets or over-investment in assets, fall in prices in the market, inferior quality of the product, lack of demand etc.

Return on capital employed or investment registered a decrease from 42% in 2006 to 11% in 2015 during the period under study. It was highest in 2006 and 2007 and lowest in 2015. Thus the study shows that the profit margin, assets turnover and return on capital employed decreased over time under study; the combined effect is that everything decreased over time. Hence, it is observed that the profit margin decreased in proportion to the return on capital employed or investment. Lower rate of return on capital employed might be due to inefficient use of the capital employed.

Explanation (Table-IV):- Table-IV indicates return on investment or capital employed of ACC Ltd. from 2006 to 2015. From 2006 to 2015, return on investment or capital employed did not show any definite trend of rise and fall. The ratios were 42%, 42%, 35%, 39%, 22%, 22%, 24%, 16%, 14%, and 11% in the years 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015 respectively.
Thus, the ratio showed a decrease from 42% in 2006 & 2007 to 11% in 2015. However, while analyzing the growth rate, it is observed that the growth of profit before interest and tax was (-) 10% and that of capital employed was 125%. It indicates that the growth of investment was more than the growth of profit before interest & tax. On an average, investment or capital employed was Rs. 5875.60 crore, profit before interest & tax was Rs. 1885.50 Crore and return on investment was 27%. Low growth of profit as compared to investment might be an indication of low profitability and overall unsound performance of the selected company under study.

Explanation (Table-V):- Table-V exhibits sales, operating cost and operating profit before interest & tax of ACC Ltd. from 2006 to 2015. The operating profits were 30%, 29%, 27%, 33%, 23%, 20%, 20%, 15%, 13%, and 13% in the years 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015 respectively.

The percentage of operating profit was least in 2014 and 2015 when it was 13% and it was highest in 2009 when it was 33%. On an average, operating profit and operating cost were Rs. 1885.50 crore and Rs. 7101.90 crore. However, the growth of operating profit i.e. (-) 10% was less than the growth of operating cost (i.e. 142.19%) indicating more prominent decrease in operating profit. Further study shows that the growth of operating cost was high (142.19%) as compared to the growth of sales (97%). While comparing the growth rates of sales, operating cost and operating profit, it is observed that: - operating cost > sales > operating profit. A high operating cost is unfavourable seems it will have a small amount of operating income to meet interest, dividends, etc.

Explanation (Table-VI):- Table-VI reveals fixed assets, working capital and investment or capital employed of ACC Ltd. from 2006 to 2015. The average capital employed in the company was Rs. 6715 crore and its growth rate was 116%. From 2006 to 2015, the growth rate of fixed assets was 125% and that of working capital was 52% indicating higher growth of fixed assets than working capital.

A cursory glance at the 'table' shows that working capital was always less than fixed assets throughout the period of study. On an average, working capital and fixed assets were Rs. 839 crore and Rs. 5875.60 crore respectively. Thus comparing the growth rate and the average of working capital with the fixed assets and the capital employed, working capital in the company was poor. The company in such a case might be handicapped as too much capital was not circulating but was tied up in fixed assets indicating possible dependent upon outside finance for funds to carry on and contingent upon profitable trading with prompt collection of debts and quick inventory turnover. The financial manager should strike a balance between the funds blocked in fixed assets and current assets.

Section-IV

Concluding Observation and Suggestion

From the foregoing analysis, the study unfolds the following interesting features:-

1. Return on investment of ACC Ltd., the selected company showed a decrease from 42% in 2006 to 11% in 2015. Profit margin or operating profit of the company also decreased from 30% in 2006 to 13% in 2014 and 2015.

2. Growth of profit was less than growth of investment or capital employed of the company under study. Hence, return on investment might not be said to be satisfactory.
3. Though ACC Ltd., the selected company had turnover more than its investment or capital employed in all the years of study but the growth of sales (i.e. 97%) was poor as compared to the growth of investment or capital employed (i.e. 125%). A further study of the assets turnover ratios does not reflect a fairly good use of assets by ACC Ltd., the selected company under study.
4. Profit margin of the company might not be said to be satisfactory; but inconsistent fluctuations in profit as compared to sales sometimes create uncertainty and unhealthy conditions in a business enterprise.
5. Working Capital of ACC Ltd., the selected company was always less than fixed assets during the period under study. Growth rate of working capital in the company was also poor in comparison with the growth rates of fixed assets and capital employed which is perhaps an indication of insufficient working capital.
6. Growth rate of sales was less than the growth rate of operating cost. This might result in lower rate of operating profit of the company over time.
7. Though operating cost of ACC Ltd., the selected company increased from 70% in 2006 to 87% in 2015 and operating profit decreased from 30% to 13% over the same period of study, yet operating cost was too high. It was least (i.e. 66.81%) in 2009 and highest (i.e. 86.87%) in 2014. The high operating cost might affect the operating profit of the company.

Suggestion

The study based on two-tier analysis of Du-Pont Chart offers the following suggestions:-

1. High operating cost might somehow affect the profit margin of ACC Ltd., the selected company. Hence, it is suggested to impose certain restriction or control over operating cost of the company under study. This may be possible through better technology and effective management.
2. Management of the company under study should have effective control over its internal management to avoid deviations from the actual. Operating efficiency of the company can be strengthened thus.
3. As working capital of ACC Ltd., the selected company was always less than fixed assets during the period under study and its growth rate was also poor in comparison with the growth rates of fixed assets and capital employed, it is suggested to increase working capital so that day-to-day operation of the company is not disturbed. Hence, there is a need to increase working capital for more satisfactory operation of the company under study.
4. Fixed assets of the company were abnormally high. Management of the company should take certain effective steps to check the growth of such fixed assets and should utilize its fixed assets more efficiently and judiciously so that more increase in production as well as in sales is possible.
5. Management of the company under study should take immediate steps to check the unnecessary blocking of money in assets. Overall efficiency of the company is possible only through better and effective utilization of assets.
6. Management should see whether sufficient provision for depreciation on fixed assets has been made.
7. There is a need to control on operating cost. Operating cost of the company was high. Through systematic control on operating cost, profit margin or operating profit can be increased and thereby efficiency of the company.
8. Both marketing management and sales management should take effective and corrective steps to prompt sales of the company under study.

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