

**A STUDY ON FINANCIAL PERFORMANCE ANALYSIS IN
ASIA CRYSTAL PRIVATE LIMITED, CHENNAI**

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ABSTRACT

This paper assesses whether restructuring improve the performance of firms by conducting an industry analysis of the Chemical sector. The study is limited to a sample of pair companies listed on the Chemical Industry drawn from the sector. Data were collected from the Asian Crystal industry and Annual Statement of Accounts and Reports of the firms. Comparisons are made between the mean of 5-years pre-restructuring and 5-years post-restructuring financial ratios, while the year of restructuring is exempted. Using financial ratio analysis, the study reveals that restructuring has significant effects on profitability, liquidity and solvency of the firms. Also, there is improvement in the firms' performance after the restructuring. It recommends that restructuring should not be used to keep failing business alive but to increase competitiveness and financial standing and management should also instill discipline upon itself so that the continued existence of the firm is not jeopardized.

Key Words: Creditors, Financial Analysis, Financial Performance, Financial Statement, Profit.

1. INTRODUCTION

The term 'financial performance analysis also known as analysis and interpretation of financial statements', refers to the process of determining financial strength and weaknesses of the firm by establishing strategic relationship between the items of the balance sheet, profit and loss account and other operative data. It also helps in short-term and long term forecasting and growth can be identified with the help of financial performance analysis. The dictionary meaning of 'analysis' is to resolve or separate a thing in to its element or components parts for tracing their relation to the things as whole and to each other. The analysis of financial statement is a process of evaluating the relationship between the component parts of financial statement to obtain a better understanding of the firm's position and performance. This analysis can be undertaken by management of the firm or by parties outside the namely, owners, creditors, investors.

The purpose of financial analysis is to diagnose the information contained in financial statements so as to judge the profitability and financial soundness of the firm. Just like a doctor examines his patient by recording his body temperature, blood pressure etc. A financial analyst analyses the financial statements with various tools of analysis before commenting upon the financial health or weaknesses of an enterprise. The analysis and interpretation of financial statements is essential to bring out the mystery behind the figures in financial statements. Financial statements analysis is an attempt to determine the significance and meaning of the financial statement data so that forecast may be made of the future earnings, ability to pay interest and debt maturities (both current and long term) and profitability of a sound dividend policy.

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

2. REVIEW OF LITERATURE

G.D. Brewer (1976)¹ If worldwide air transportation is to continue to grow as forecast, a fuel must be found to supplant petroleum-based kerosene (Jet A). The new fuel must be available universally without hazard of control by cartel, and must meet fundamental requirements of economics, safety, performance and environmental considerations. Hydrogen is found to provide this potential. The results of studies performed to investigate the feasibility, practicability, and potential advantages/disadvantages of using liquid hydrogen as fuel in both subsonic and supersonic commercial transport aircraft for initial operation in the 1990–2000-time period are discussed.

T.D. Brown (1982)² This introductory review summarizes a series of specific areas of technology which must contribute to the development of a coal gasification-combined cycle power plant. The optional combinations of the gas and steam turbines are each seen to pose different technical problems. The paramount importance of the development of a high temperature (> 1200°C) turbine

¹ **G.D. Brewer (1976)** - International Journal of Hydrogen Energy, 'Aviation usage of liquid hydrogen fuel—prospects and problems', Volume 1, Issue 1, 1976, Pages 65–88.

² **T.D. Brown (1982)** - Progress in Energy and Combustion Science, 'Coal gasification—combined cycles for electricity production', Volume 8, Issue 4, 1982, Pages 277–301.

inlet temperature and the subsidiary role of high temperature gas cleaning and water requirements are discussed; the prospective reliability of gasifier/boiler couplings are largely unknown. The cost of electricity from the combined-cycle process has been shown to be most attractive in regions of high cost coal. It is considered likely that combined cycle power production will be implemented where conditions of high coal cost, low water availability and strict emission regulations coexist.

S.S. Penner et al (1984)³ Improved and new methods for direct coal utilization are reviewed, including the following: direct burning of pulverized coals, clean-fuel-combined-cycle systems, atmospheric pressure fluidized-bed combustion, advanced and pressurized fluidized-bed combustion, slagging combustors, coal-oil mixtures, coal-water mixtures, other coal slurries, etc. The emphasis is on research needs identified by the DOE/Coal Combustion and Applications Working Group (CCAWG) and relating to such processes as coal cleaning, slagging and fouling, environmental control systems, on-line diagnostics, and modeling.

R.J. Swersey et al (1986)⁴ This paper furnishes an overview of the development status, economic viability, and environmental aspects of a select group of newer coal-burning technologies that are likely to augment or replace today's conventional modes of generating electricity possibly as early as the mid-to-late 1990s. An analysis of current fuel choice economics in the power and industrial sectors is also reviewed, to set the basis for the thermal coal demand and supply outlook to 2000. World thermal coal demand growth is expected to average almost 2.5% per year over this time period, with internationally traded coal rising by 6% annually. However, surplus industry production capacity is expected to persist until about 1990. With the large world-wide reserve base, industry need develop only high-quality, low-cost reserves to compete in the international marketplace.

L. Douglas Smoot (1984)⁵ Modeling of coal-reaction processes has received significant emphasis over the past decade. Yet, model development has not reached the point where significant use is made in process development for coal utilization. One of the key recommendations from a panel

³ **S.S. Penner et al (1984)** - Energy, 'Developing coal-combustion technologies', Volume 9, Issue 5, May 1984, Pages 361-418.

⁴ **R.J. Swersey et al (1986)** - Energy, 'Coal demand and supply outlook to 2000: the influence of fuel choice technology and economics', Volume 11, Issues 11-12, November-December 1986, Pages 1283-1292.

⁵ **L. Douglas Smoot (1984)** - Progress in Energy and Combustion Science, 'Modeling of coal-combustion processes', Volume 10, Issue 2, 1984, Pages 229-267.

of lignite and university professionals to the U.S. Department of Energy on research needs for coal utilization was that “Development of combustion models is needed to the point where they will find application in the management and control of practical systems”.

3. SIGNIFICANCE OR NEED OF THE STUDY

The present study aims at evaluating the overall financial performance of the Asia Crystal (P) Ltd., for the period of five years are related from the financial data of the company’s annual reports. This study helps to identify the strength and weakness of the company’s financial performance further for its growth and developments.

4. OBJECTIVES OF THE STUDY

- ❖ To study the overall financial performance analysis with data collection.
- ❖ To study the origin and growth of the Asia Crystal pvt. ltd.
- ❖ To analyze the financial position of the company through ratio analysis.
- ❖ To study the financial position and comparative statement of year by year.
- ❖ To study the trend level or sales to the Asia Crystal pvt. ltd.
- ❖ To give suggestions for further improvement and development of the company.

5. SCOPE OF THE STUDY

The present study attempts to obtain a general view of the financial performance practice in Asia Crystal pvt. ltd.

- This study will help the in making some financial decision for further years
- The study tells the detailed operations related to the firm’s operations and its efficiency to be improved.
- Then the study clearly explains about at what areas they have to improve their performance.
- It helps in making some reference for its past performance.

6. LIMITATIONS OF THE STUDY

The following are the some of the limitations of the study

- Almost the entire analysis made in the study is based on the balance sheet and profit & loss etc. given in the annual reports of the company
- The study covers only five years. An analysis of five years’ data may net show they are trend and performance of the company

- Most of the data collected was historical in nature. The hence value of money has not been taken into consideration.

7. RESEARCH METHODOLOGY

The evaluation of the study is based on the secondary data collected from the annual reports, journal and magazine. The analysis drawn and recommendations made are based of the facts, graphs and diagrams which are given to represent statistical data of the study.

❖ SOURCES OF DATA

The nature of data collected for the study is secondary. All the necessary data required for various computations into course of analysis were taken from the published annual report of the Asia crystal comprising of the profit and loss account and the balance sheet.

❖ DATA ANALYSIS

In order to the objectives of the study, the present study evaluation the data drawn from the set sources in different ways, the data obtained have been duly classified and analyzed as per the required of the study. Statistical measures like mean, co-efficient of variation, have been applied.

TOOLS USED FOR ANALYSIS OF DATA

- Ratio Analysis
- Comparative Balance Sheet
- Trend Analysis

8. DATA ANALYSIS AND INTERPRETATION

8.1 CURRENT RATIO

The current ratio of a company measures its short-term solvency, i.e., the ability of a firm to meet its short-term obligations. As a measure of liquidity, it indicates the rupee value of current assets available for each rupee of current liquidity. The higher the current ratio, the greater is the safety of funds for short-term creditors.

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

TABLE 8.1
CURRENT RATIO

Year	Current Assets	Current Liabilities	Ratio
2010-11	4360.81	3505.26	1.24
2011-12	4796.04	4837.41	0.99
2012-13	4788.26	4749.58	1.01
2013-14	4176.91	4320.21	0.96
2014-15	5286.96	5266.80	1.00

Source: Secondary Data

8.2 LIQUIDITY RATIO

The term „liquidity“ refers to the ability of a firm to pay its short-term obligation and when they become due. The term quick assets or liquid assets refers current assets which can be converted into cash immediately and it comprises all current assets except stock and prepaid expenses it is determined by dividing quick assets by quick liabilities.

$$\text{Liquidity ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

TABLE 8.2
LIQUIDITY RATIO

Year	Liquid assets	Current Liabilities	Ratio
2010-11	2151.91	3505.26	0.61
2011-12	2565.41	4837.41	0.53
2012-13	2892.24	4749.58	0.60
2013-14	2988.21	4320.21	0.69
2014-15	3888.43	5266.80	0.74

Source: Secondary Data

8.3 ABSOLUTE LIQUIDITY RATIO

Absolute liquidity ratio includes cash, bank, and marketable securities. This ratio obtained by dividing cash, bank and marketable securities by current liabilities.

$$\text{Absolute liquidity ratio} = \frac{\text{Cash} + \text{bank} + \text{marketable securities}}{\text{Current liabilities}}$$

TABLE 8.3
ABSOLUTE LIQUIDITY RATIO

Year	Liquid assets	Current Liabilities	Ratio
2010-11	179.53	3505.26	0.05
2011-12	32.56	4837.41	0.00
2012-13	13.64	4749.58	0.00
2013-14	11.69	4320.21	0.00
2014-15	751.29	5266.80	0.14

Source: Secondary Data

8.4 DEBT EQUITY RATIO

Expresses the relationship between the external equities and internal equities or the relationship between borrowed funds and „owners“ capital. It is a popular measure of the long-term financial solvency of a firm. This relationship is shown by the debt equity ratio. This ratio indicates the relative proportion of debt and equity in financing the assets of a firm. This ratio is computed by dividing the total debt of the firm by its equity (i.e.) net worth.

$$\text{Debt equity ratio} = \frac{\text{Total Long –Term Debt}}{\text{Shareholders' Funds}}$$

The term external equities refer to total outsider’s liabilities.

Internal equities refer to shareholder’s funds or the tangible net worth. Here a shareholder refers to only the equity shareholders.

Total Long –Term Debt = debentures, secured loans,

Shareholders’ Funds = share capital + reserves + P/L

TABLE 8.4
DEBT EQUITY RATIO

Year	Total Long –Term Debt	Shareholders’ Funds	Ratio
2010-11	1272.22	2656.68	0.48
2011-12	960.43	2898.41	0.33
2012-13	1903.46	4455.11	0.43
2013-14	1937.30	4447.89	0.43
2014-15	910.00	4096.8	0.22

8.5 PROPRIETARY RATIO

Proprietary ratio relates to the proprietor's funds to total assets. It reveals the owner's contribution to the total value of assets. This ratio shows the long-time solvency of the business. It is calculated by dividing proprietor's funds by the total tangible assets.

$$\text{Proprietary ratio} = \frac{\text{Shareholders' fund}}{\text{Total tangible Assets}}$$

Shareholders fund = Share capital + Reserves and Surplus

Total tangible Assets = fixed assets + Current assets + Investment

TABLE 8.5
PROPRIETARY RATIO

Year	Shareholders' fund	Total tangible Assets	Ratio
2010-11	2656.68	8918.32	0.29
2011-12	2898.41	10043.69	0.28
2012-13	4455.11	12407.77	0.35
2013-14	4447.89	12626.47	0.35
2014-15	4096.8	12169.53	0.34

Source: Secondary Data

8.6 INVENTORY TURNOVER RATIO

This ratio is also called stock velocity ratio. It is calculated to ascertain the efficiency of inventory management in terms of capital investment. It shows the relationship between the cost of goods sold and the amount of average inventory. Stock turnover ratio is obtained by dividing the cost of sales by average stock. The rationale behind establishing the relationship between cost of sales and average stock is that stock is at the cost price. This ratio is helpful in evaluating and review of inventory policy.

$$\text{Inventory turnover ratio} = \frac{\text{Net sales}}{\text{Average Inventory or stock}}$$

TABLE 8.6
INVENTORY TURNOVER RATIO

Year	Net Sales	Average Inventory	Ratio
2010-11	11407.15	1923.57	5.89
2011-12	13309.59	2219.76	5.99
2012-13	12481.20	2063.32	6.04
2013-14	9943.43	1542.36	6.44
2014-15	13562.18	1293.61	10.48

Source: Secondary Data

8.7 WORKING CAPITAL TURNOVER RATIO

Working capital of a concern is directly related to sales (i.e.) the current assets like debtors, bills receivables, cash, stock etc., and change with the increase or decrease in sales. This ratio indicates the number of times the working capital is turned over in course of a year. A higher ratio indicates efficient utilization of working capital and a low indicates vice versa.

$$\text{Working capital turnover ratio} = \frac{\text{Sales} / \text{Cost of sales}}{\text{Working capital}}$$

$$\text{Net working capital} = \text{current assets} - \text{current liabilities}$$

TABLE 8.7
WORKING CAPITAL TURNOVER RATIO

Year	Sales	Working capital	Ratio
2010-11	12393.36	365.22	33.93
2011-12	14134.08	-538.31	-26.25
2012-13	12481.20	-348.52	-35.81
2013-14	9943.43	-299.29	-33.22
2014-15	14485.93	-314.50	-46.06

Source: Secondary Data

8.8 CASH TO WORKING CAPITAL RATIO

The cash to working capital ratio measure how well a company can meet its short-term liabilities using its liquid assets such as cash and cash equivalents and marketable securities. The

ratio will also help uncover situations where the company may be too heavily spending its cash on inventory that is not being turned into sales as rapidly as it should be.

$$\text{Cash to working capital ratio} = \frac{\text{Cash}}{\text{Working capital}}$$

TABLE 8.8

CASH TO WORKING CAPITAL RATIO

Year	Cash	Working capital	Ratio
2010-11	179.53	365.22	0.49
2011-12	32.56	-538.31	-0.06
2012-13	13.64	-348.52	-0.03
2013-14	11.69	-299.29	-0.04
2014-15	751.29	-314.50	-2.38

Source: Secondary Data

8.9 CASH TO SALES RATIO

It indicates the effectiveness of the firm's credit and collection policies and the amount of cash required as buffer for unexpected delays in cash collections. It is the inverse of cash turnover ratio.

$$\text{Cash to Sales Ratio} = \frac{\text{Cash}}{\text{Sales}}$$

TABLE 8.9

CASH TO SALES RATIO

Year	Cash	Sales	Ratio
2010-11	179.53	12393.36	0.01
2011-12	32.56	14134.08	0.00
2012-13	13.64	12481.20	0.00
2013-14	11.69	9943.43	0.00
2014-15	751.29	14485.93	0.05

Source: Secondary Data

8.10 CURRENT ASSET TO TOTAL ASSET

This ratio represents the structure of assets and the amount in form of current assets per each pound invested in assets. Current assets are important to business because they are the assets that are used to found day-to-day operations and pay on-going expenses and include cash, accounts receivable, inventory, marketable securities, prepaid expenses and other liquid assets that can be readily converted to cash.

$$\text{Current Asset to Total Asset} = \frac{\text{Current assets}}{\text{Total assets}}$$

TABLE 8.10
CURRENT ASSET TO TOTAL ASSET

Year	Current assets	Total assets	Ratio
2010-11	4360.81	5314.86	0.82
2011-12	4796.04	5293.96	0.90
2012-13	4788.26	7959.92	0.60
2013-14	4176.91	8331.80	0.50
2014-15	5286.96	6688.21	0.79

Source: Secondary Data

8.11 LOANS ADVANCES TO CURRENT ASSETS RATIO

This ratio defines the relationship between loans and advances to current assets ratio. It also determines the loans and advances that had been taken by the company.

$$\text{Loans advances to current assets} = \frac{\text{Loans advances}}{\text{Current assets}}$$

TABLE 8.11
LOANS ADVANCES TO CURRENT ASSETS RATIO

Year	Loans advances	Current assets	Ratio
2010-11	787.17	4360.81	0.18
2011-12	1302.48	4796.04	0.27
2012-13	1458.89	4788.26	0.30
2013-14	1677.51	4176.91	0.40
2014-15	1879.45	5286.96	0.35

Source: Secondary Data

8.12 PAY OUT RATIO

This ratio also indirectly throws light on the financial policy of the management in ploughing back. The following formula is

$$\text{Payout ratio} = \frac{\text{Equity dividend}}{\text{Net profit after tax and preference dividend}} \times 100$$

TABLE 8.12
PAY OUT RATIO

Year	Equity dividend	Net profit after tax and preference dividend	Ratio
2010-11	266.07	631.30	42.15
2011-12	266.07	565.98	47.01
2012-13	159.64	433.71	36.80
2013-14	0.00	29.38	0.00
2014-15	26.07	334.81	7.78

Source: Secondary Data

8.13 TREND ANALYSIS

Trend analysis is the process of comparing business data over time to identify any consistent results or trends. You can then develop a strategy to respond to these trends in line with your business goals. Trend analysis helps you understand how your business has performed and predict where current business operations and practices will take you. Done well, it will give you ideas about how you might change things to move your business in the right direction.

You can use trend analysis to help improve your business by:

- identifying areas where your business is performing well so you can duplicate success
- identifying areas where your business is underperforming
- Providing evidence to inform your decision making.

This guide explains how you can use historical data to analyze trends and improve your business.

TABLE NO 8.13
TREND ANALYSIS

SALES			NET PROFIT		TOTAL EXPENSES	
YEAR	AMOUNT	TREND %	AMOUNT	TREND %	AMOUNT	TREND %
2011	12393.36	100	631.30	100	10365.13	100
2012	14134.08	114.04	565.98	89.65	12228.27	117.97
2013	12481.20	100.71	433.71	68.70	11332.75	109.33
2014	9943.43	80.23	29.38	4.65	9352.99	90.23
2015	14485.93	116.88	334.81	53.03	12588.16	121.45

Source: Secondary Data

INTERPRETATION

The sales, Net profit and Total expenses percentage was above 100% in the year of 2015. The company Net profit is decreased for 53.03 to trend percentage in 2015. Sales trend percentage is 116.88 percent in 2015 and the next Total expenses percentage is 121.45 in 2015.

9. FINDINGS

- The current ratio in the year 2010-11 is 1.24 and finally in the year 2014-15 it moved down to 1.00 Profitability ratios the normal current ratio is 2:1.
- The liquidity ratio during the study period is lower than the normal (i.e.) 1:1. It was 0.61 in the year 2010-11 and further increased to 0.74 in 2014-15 and it has been fluctuating and is below the normal ratio.
- The absolute ratio it was 0.05 in the year 2010-11. Next three years onwards it moves down to 0.00 and it moves upwards to 0.14 in the year of 2014-15.
- The debt equity relationship all the years the equity is less when compared with borrowings. Hence the company is not maintaining its debt position.
- The proprietary ratio for the year 2010-11 is 0.29. Final year 2014-15 is 0.34. In all the years the owner's contribution to the total assets was appropriate and they maintain their share in the company's assets.
- the Ratio on Total Assets for 11.88 in the year 2010-11 and then reached down to 10.69 and the next final year 2014-15 it again moved down to 5.00.

- The turnover ratio shows a fluctuation, in the year 2010-11 is 10.46 the final year of 2014-15 is increased to 11.52. It shows that the companies have not better collection of debt.
- The ratio is observed that it shows the good position as far as Inventory turnover ratio is concerned; although it shows a varying trend till 2011 it increases in 2015.
- Working capital turnover ratio from the year of 2010-11 was 33.93 and -46.06 in the year 2014-15. This shows constant decrease in the working capital of the company.
- Cash to working capital ratio is decreased gradually from year 2010-15 and slowly starts rising from the year 2011. It was negative form 2012-2015.
- The cash to sales ratio decreases from the year of 2011-2015. This ratio show ultimately comes down to 0.00 in the year of 2012-2014. So the cash to sales ratio is not in a good manner.
- Current assets to total assets ratio in the year of 2010-11 is 0.82 and decreases in the year of 2012-13 to 2014-12013-14 and then decreases gradually to the end of the year.
- loans and advances to current assets ratio in the year of 2010-11 is 0.18 and increases in the year of 2014 and then decreases gradually to the end of the year.
- The payout Ratio is 42.15 in the year 2010-11 and then reached down to 7.78 onwards it ultimately come down to 7.78 to 2014-15.

10. SUGGESTIONS

- The firms have low current ratio so it should increase its current ratio where it can meet its short term obligation smoothly.
- Liquidity ratio of the firm is not better liquidity position in over the Ten years. So I suggested that the firm maintain proper liquid funds like cash and bank balance.
- The firm high inventory so I suggested that the firm must reduce the stock and increase sales.
- The direct material cost of the firm is very high so it's my Suggest to the firm that to decrease the direct material cost by purchasing raw material from the other suppliers.
- The firms should have proper check on the manufacturing process of the plant.
- Each and every year's inventory level should be flexible for the stock level.
- The company should control fluctuations in cash and bank balances as it impacts the current ratio of the company.
- This project of financial performance analysis in the production concern is not merely a work of the project. But a brief knowledge and experience of that how to analyze the financial

performance of the firm. The study undertaken has brought in to the light of the following conclusions. According to this project I came to know that from the analysis of financial statements it is clear that Asian Crystal. They have been incurring loss during the period of study. So the firm should focus on getting of profits in the coming years by taking care internal as well as external factors. And with regard to resources, the firm is take utilization of the assets properly. And also the firm has a maintained high inventory. The liquidity position should be increase in the company. Long term solvency position of company was satisfactory. The Overall Financial performance of Asian Crystal industry was good.

11. CONCLUSION

The project entitled “A Study on financial Performance of Asian Crystal Industry” was undertaken with the objective of financial performance and to examine profitability performance of the company. From the study Gross Profit and Net profit position was good.

This project of financial performance analysis in the production concern is not merely a work of the project. But a brief knowledge and experience of that how to analyze the financial performance of the firm. The study undertaken has brought in to the light of the following conclusions. According to this project I came to know that from the analysis of financial statements it is clear that Asian Crystal. They have been incurring loss during the period of study. So the firm should focus on getting of profits in the coming years by taking care internal as well as external factors. And with regard to resources, the firm is take utilization of the assets properly. And also the firm has a maintained high inventory. The liquidity position should be increase in the company. Long term solvency position of company was satisfactory. The Overall Financial performance of Asian Crystal industry was good.

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