

## **A COMPARATIVE STUDY ON SELECTED CERAMICS INDUSTRY IN INDIA**

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### **ABSTRACT**

Performance evaluation of ceramic industry of india and to test its financial soundness. The main aim is achieved through ratio analysis of selected ceramic (Somany, Nitco, Kajaria and Hsil companies in india. The financial performance of this industry is measured in terms of profitability, solvency, efficiency and liquidity analysis and to test the financial soundness, Multivariate Discriminate Analysis (MDA) is used. The necessary data has been obtained from the audited annual report of the selected companies.

**Keywords : Ratio Analysis, Financial Distress**

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## 1. INTRODUCTION

CERAMIC industry of India is a booming sector and the growth potential of both domestic and foreign market indicates it may become one of the big foreign currency earners for the country. Now it's time to measure and analyze the performance of industry. But such kind analysis has not been done on this ceramic sector before. So, this gap of analysis we have tried to evaluate and interpret the performance of selected Ten ceramic companies for the period of 2006-7 to 2015-2017. evaluation of a company is usually related to how well a company can use its assets, share holder equity and liability, revenue and expenses. Financial ratio analysis is one of the best tools of performance evaluation of any company.

It determines the greater the coverage of liquid assets to short-term liabilities and it also computes ability to pay ceramic company's short-term and long-term payments obligation from the cash generated. It determines the share market condition of ceramic company's. It is also used to analyze the ceramic company's past financial performance and to establish the future trend of financial position.

## 2 OBJECTIVE OF THE STUDY

The present thesis enlists the following objectives to set the direction for research and analysis:

- [1] To trace the historical origin, growth of ceramic industry in India.
- [2] To evaluate the present status of ceramic industry in India.
- [3] To identify and analyze the geographical factors responsible for the growth of industry in India.
- [4] To analyze the spatial inertia and spatial spread of ceramic industry.

### 3.1 Profitability Ratios

Profitability ratios measure a company's ability to generate earnings relative to sales, assets and equity. These ratios assess the ability of a company to generate earnings, profits and cash flows relative to relative to some metric, often the amount of money invested. They highlight how effectively the profitability of a company is being managed. The gross profit margin, operating profit margin, net profit margin, return on assets (ROA) and return on equity (ROE) ratios are

calculated to measure the profitability of an enterprise. The various financial ratios covering profitability of the selected ceramics for the periods of 2006-7 to 2015-16

### **3.1.1 Gross Profit Margin**

Gross profit margin (gross margin) is the ratio of gross profit

(gross sales less cost of sales) to sales revenue. It is the percentage by which gross profits exceed production costs. Gross margins reveal how much a company earns taking into consideration the costs that it incurs for producing its products or services. Gross margin measures a company's manufacturing and distribution efficiency during the production process. Some author considers that a profit margin ratio ranging from 20% to 30% has been considered as the standard norm for any industrial enterprise. The gross profit margin of the selected ceramic companies. The industry average is 23.8%, which is within the standard norm. The average gross profit margin range from 33.4% in kajaria to 16.8% in Hsil. In view of Hsil, the gross profit margin of kajaria (33.4%) and somany (24.4%) was within the standard norm and shows an increasing trend. Hsil (16.8%) are below the industry average and also the standard norm, but they also shown an increasing trend. The above calculation indicates that the selected ceramic companies, like somany and kajaria seems to be in advantage position among two other, Because they are earning highest return on sale after covering the sales related cost. The co-efficient of variation of gross profit ratios of the samples reveals that the variation Of gross profit over the year is negligible except somany and Hsil.

### **3.1.2 Operating Profit Margin**

This ratio is widely used to evaluate an entity's operating performance. It indicates how much profit an entity makes after paying for variable costs of production such as wages, raw materials, etc.. Though, in some instances, a low return on sales can be offset by increased sales. It is also known as "return on sale (ROS)" or "operating margin". The average operating profit ratio of the sample for ceramic companies ranges from highest 27.8% in kajaria to lowest 0.50% in Hsil. The industry average operating profit margin is 11.3% and somany (4.1% and Hsil (0.50%) are below the industry average, but after facing negative return on two consecutive two year (2007-08 &

2008-09) their performance is showing an increasing trend in next years. The average operating profit margin of kajaria (27.8%) is continuing over the study years. As to variation of operating profit over the years, it is revealed by the coefficient of variance that the variation ranges from 3.97% in kajaria to 976.11 % in Hsil. The negligible variation of 3.97% in kajaria and 7.43% in somany indicates desirable stability position.

### **3.1.3 Net Profit Margin**

Net profit margin is displayed as a percentage. It shows the amount of each sales dollar left over after all expenses have been paid. Net profit margin is a key ratio of profit ability. It also indicates management efficiency in manufacturing, administering and selling of the products. The net profit ratios range from highest 11% in kajaria to lowest 0.2% (negative) in Standard. kajaria earned the highest average net profit margin (11%) and the industry average is 4.1%. the average net profit margin of somany (4.8%) and kajaria (11%) are above the industry average but their performance shows that a decreasing trend. The average net profit margin of Nitco (0.9%) is very below the industry average. The co-efficient of variation of net profit ratios of the samples reveals that the variation of gross profit over the year is significant except kajaria which speaks about the stability of net income of this company.

### **3.1.4 Return On Assets (ROA)**

ROA gives an idea as to how efficiently management use company assets to generate profit, but is usually of less interest to shareholders than some other financial ratios such as ROE. the average returns in total assets range from highest 3.90% in kajaria to lowest 0.3% in Hsil. It is seen from the The average return on total assets is 1.70% which is very low of hsil norm (10%-12%) and this cannot be considered as satisfactory and acceptable. Though the above calculation shows that the somany and Nitco have an increasing trend in their performance but rest of two kajaria and Hsil performance is decreasing. So on a nutshell it can be concluded that the selected companies are not utilizing their assets properly. The co-efficient of variation of return of assets of the samples reveals that the variation of ROA over the year is significant except kajaria which speaks about the stability of return on assets of this company.

### **3.1.5 Return On Equity (ROE)**

Return on equity (ROE) is the amount of net income re-turned as a percentage of shareholders equity. The average returns on total equity range from highest 10.30% in Nitco to lowest 0.6% in Hsil. It appears from the table that the industry average return on equity is 4.5%. kajaria has a high ratio (10.3%) as compared to the industry average and other three companies. It appears from the Hsil has the highest variation (816.9%) and Nitco has the second highest variation (151.8%) as indicated by the co-efficient of variation which indicates extremely in stability in their earnings. The variation of this ratio for Hsil is (41.48%) should be considered satisfactory. The lower ratios conclude that management should be more efficient in using the long term fund of owners and creditors.

## **3.2 Solvency Ratios**

Debt-to-Total Assets and Times Interest Earned ratios are commonly calculated to measure the company's solvency.

### **3.2.1 Debt to Total Assets Ratio**

Debt to Total Asset Ratio is the ratio that represents the financial position of the company and the company's ability to meet all its financial requirements. The higher the level of long term debt, the more important it is for a company to have positive revenue and steady cash flow. The debt to total assets ratio for the selected ceramic companies for the period of 2006 to 2010. It is observed from the table that the industry average debt to assets ratio is 7.31%. The average ratio range from 0.75% (somany) to 18.13% (kajaria). The average ratio of somany (0.75%) and Hsil(1.34%) are very low, due to somany have long term loan only in year 2007-2008 and 2008-2009 and Hsil also reduced their debt after year 2008-2009. Such a lower ratio of debt to total assets of somany and Hsil indicates that they are less dependent on debt and capable of financing their projects through their own fund. Among them only kajaria have a large amount of debt, that also they have reduced each year. From the co-efficient of variation it is clear that the variation over time is very insignificant for all the ceramic companies.

### **3.3 Activity Ratios**

Activity ratios show the intensity with which the firm uses its assets in generation sales. The ratios indicate whether the firm's investments in current and long-term assets are too small or too large. The objective is to have enough assets but not too many.

#### **3.3.1 Inventory Turnover Ratio**

The industry average inventory turnover is 1.60 times. The average inventory turnover ratio range from 1.31 times in kajaria to 1.87 times in Nitco. There is no general norm for the inventory turnover ratio; it should be compared against industry averages. The average inventory turnover ratio of Nitco (1.87) and Hsil(1.66) are above the industry average. The average inventory ratio of somany(1.55) and kajaria is (1.31) is below industry average. The calculated ratios indicate that the sales management of the selected ceramics can be said to be efficient to sell its product. As to variation of inventory turnover over the years, it is revealed by the coefficient of variance that the coefficient of variance is satisfactory stable.

#### **3.3.2Accounts Payable Turnover Ratio**

The ratio shows how many times in a given period (typically 1 year) a company pays its average accounts payable. Accounts payables turnover trends can help a company assess its cash situation. The industry average accounts payable turnover ratio is 6.96 times. The average accounts payable turnover ratio ranges from 2.63 times in Nitco to 11.27 times in Standard. Average ratio of Nitco (2.63 times) is below industry average and the average of somany (8.63 times), kajaria(7.26 times) and Hsil(11.26 times) are above the industry average. The co-efficient of variation of accounts payable turnover of the samples reveals that the variation over the year is insignificant which speaks about the stable of cash flow to meet the short term liabilities.

#### **3.3.3 Fixed Assets Turnover Ratio**

The fixed assets turnover ratios for the selected ceramic for the study period. From the calculated ratios it is seen that the industry average fixed assets turnover is 0.93 times. The average ratio ranges from 0.59 times in kajaria to 2.43 Nitco. The average ratio of somany (0.71) and kajaria (0.59) are lower than the industry average and as well as very lower than the standard. The average of Hsil(1.35) and Nitco(2.43) are above the industry average and Nitco is

very near to Hsil average also. Decreasing trend in somany and kajaria indicates the poor level of sale in terms of fixed assets. From the co-efficient of variation it is clear that the variations are very insignificant.

### **3.3.4 Total Assets Turnover Ratio**

It measures the extent of sales generated by utilizing the total assets. Hsil total assets turnover is 2 time (200%). The industry average total assets turnover ratio is 0.54 times which is below the Hsil norm. The average total assets turnover ratio ranges from 0.36 times in kajariato 0.87 times in Nitco. Average ratio of kajaria (0.36) and somany (0.44) are below industry average and the average of Nitco (0.87 times) and Hsil (0.67 times) are above the industry average but all the company's average is below the standard norm. Such a low level of total assets turnover ratio of all the companies indicates that the selected ceramic companies generate lower taka of sales per take of tangible assets, this is the indication of poor management of total assets. From the co-efficient of variation it is seen that the variation over time is stable.

## **3.4 Liquidity Ratios**

The current ratio, quick ration, cash ratio and cash flow from operation ratio are used to assess liquidity position of an enterprise.

### **3.4.1 Current Ratio**

Is the ratio is too high the firm may have an excessive investment in current assets or to be under utilizing short term credit. Some authors indicate consider 2:1 as Hsil norm for current ratio. The industry average is 0.99:1 which indicates that the industry is not able to meet its current obligation from its current assets. The average current ratio range from 0.92:1 in Hsil to 1.12:1 in somany. The average current ratio of Hsil(0.92:1) and Nitco (0.94:1) are below the industry average as well as below the Hsil norm. The average current ratio of kajaria(0.99:1) is at industry average. The average current ratio of somany (1.12:1) is above industry average but below Hsil norm. It is seen from the table that all these ratios are far from standard norm. Therefore it can be said that the liquidity in terms on current ratio had been quite inadequate in all the years under study for all the ceramics. The downward trend in current ratio of kajaria and Hsil indicates the

inefficient liquidity management, the financial position is very unsatisfactory and the company's short-term solvency is threatened. From the coefficient of variation it is clear that the variation of current ratio over time is negligible

### **3.4.2 Quick Ratio**

The industry average of quick ratio is 0.20:1 which is very lower than the Hsil (1:1) ratio. The average liquid ratio range from 0.03:1 in Hsil to 0.30:1 in somany. The average quick ratio of Hsil (0.03:1) and Nitco (0.18:1) are below the industry average as well as below the standard norm. The average current ratios of somany (0.30:1) and kajaria(0.29:1) are above industry average but below standard norm. It indicates that all ceramics are financially weak and have no ability to pay its most immediate liabilities. It also observed that this position is increasing for most of them and it is the good signal for the companies. In the context of variation of this ratio over the years, it is found that the variation is almost stable, except somany. In the context of variation of this ratio over years, it is found that the variation is almost stable.

### **3.4.3 Cash Ratio**

Cash ratio is the most stringent and conservative of the three liquidity ratios (current, quick and cash ratio). It only looks at the company's most liquid short-term assets – cash and cash equivalents – which can be most easily used to pay off current obligations. The industry average of cash ratio is 0.09:1 which is very lower than the Hsil (0.20:1) ratio. The average cash ratio range from 0.01:1 in kajaria to 0.29:1 in somany. The average

cash ratios of Hsil (0.03:1); Nitco (0.04:1) and kajaria (0.01:1). The average cash ratio of somany (0.29:1) is above industry average. The coefficient of variation it is seen that the variation of cash ratio is insignificant.

### **3.4.4 Cash Flow from Operation Ratio**

The cash flow from operations ratio measures liquidity by comparing actual cash flows, instead of current and potential cash resources with current liabilities. The average cash flow from operation ratio of Nitco(0.06:1); somany (0.07:1) and Hsil(0.10:1) are lower than the industry average and kajaria(0.20:1) is higher than the industry average. From the calculated ratios it is



clearly seen that the cashflow from operation ratios are very small for Nitco and somany. Fromt he coefficient of variation it is seen that the variation of cash flow from operation is very significant.

#### **4.CONCLUSIONS**

**In the preceding analysis, it has been observed that the financial position and operational performance of the selected ceramic companies in terms of profitability and efficiency is good and shown an increasing trend. Due to inefficiency in liquidity management and not to utilize the debt financing as suggested, the industry shown very low performance.**

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