FINANCIAL PERFORMANCE ANALYSIS OF SELECTED CERAMIC COMPANIES IN INDIA

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Abstract

Financial analysis is a process of identifying the financial strength and weakness of the firm by properly establishing relationships between the items, the balance sheet and the profit and loss account. Financial analysis helps to assess the financial position and profitability of a concern. This is done through comparison by ratios for the same concern over a period of years, or for one concern against the pre-determined standards. Accounting ratios calculated for a number of years show the trend of change of financial position i.e., whether the trend is upward or downward, or static. The ascertainment of trend helps us in making right estimates for the future.

Financial Analysis can be undertaken by management of the firm or by parties outside the firm Viz., owners, creditors, investors and others. The nature of analysis will differ depending on the purpose of analyst. For example, trade creditors being their claims over a very short period of time, they are interested to evaluate the firm's liquidity positions. The long term debt suppliers are interested to know the long term solvency and survival of the firm. The investors are interested to know the firms earnings. Finally, management of the firm would be interested in every aspects of the financial analysis. Seven Ceramic companies' annual report for 10 years from 2010-1 to 2001-02 have been taken to analyze their financial performance by incorporating Ratio analysis, Mean, standard deviation, Coefficient of variation (COV), ANOVA, Post-hoc test have applied to find out the financial performance of selected ceramic companies in India.

INTRODUCTION

History of ceramic Tiles

It is believed that the first clay tiles were produced seven to eight thousand years ago n the area now known as the Holy land. Many sources independently verify that the actual known history of Tiles (and the known usage f wall and floor tile coverings) can be traced back as far as the fourth millennium BC (4000 BC) to Egypt. In those days, in Egypt, tiles were used to decorate various houses. Cay bricks were dried beneath the sun or baked, and the first glazes were blue in colour and were made from copper, very exquisite.

During that period ceramics were also known to be found in Mesopotamia. The usage and the art of making and decorating ceramic tiles had spread and by 900 A.D., decorative tiles had become widely used in Persia, Syria, Turkey and across North Africa.

Today ceramic tile throughout the world is not hand –made or hand-painted for the most part. Automated manufacturing techniques are used and the human hand does not enter into the picture until it is time to install the tile. In fact most modern houses throughout use ceramic tiles for their bathrooms and kitchens and in every vital area of the premise. Ceramic tiles are also the choice of industry, where walls and floors must resist chemicals. And the space shuttle never leaves earth without its protective jacket of high-tech, heat resistant tiles.

In fact most modern houses throughout use Ceramic tiles for their bathrooms and kitchens and in every vital area of the premise. Ceramic tiles are also the choice of industry, where walls and floors must resist chemicals. And the Space Shuttle never leaves Earth without its protective jacket of high-tech, heat resistant tiles.

Ceramic Tiles Industry in India

Highlights

Ceramic tiles today have become an integral part of home improvement. it can make a huge difference to the way your interiors and outdoors look express. The Indian tile industry, despite an overall slowdown of the economy continues to grow at a healthy 15% per annum. Investments in the last 5 years have aggregated over Rs. 5000 crores. The overall size of the Indian ceramic tile industry is approximately Rs. 18,000 crore (FY 12). The production during 2011-12 stood at approx. 600 million square meters.

The Indian tile industry is divided into organized and unorganized sector. The organized sector comprises of approximately 14 players. The current size of the organized sector is about Rs.7,200 crores. The unorganized sector accounts for nearly 60% of the total industry bearing testimony of the growth potential of this sector.

India ranks in the top 3 list of countries in terms of tile production in the world. With proper planning and better quality control our exports (presently insignificant) contribution can significantly increase.

Ceramic Tile Industry Statistics

1.	World production:	11913 Million sq.m
2.	India's Share:	750 Million sq.m
3.	World ranking (in production):	3
4.	Per capita consumption:	0.50 sq.m
5.	Global Industry Growth Rate:	11%
6.	Growth Rate (India Domestic Market):	15%
7.	National Player's Turnover (India):	Rs. 8600 crores
	a). Glazed Wall Tile share:	45%
	b). Glazed Floor Tile share:	8%
	c). Polished Vitrified Tile share:	40%
	d). Glazed Vitrified Tiles:	7%
8.	Regional Player's Turnover:	Rs 12900 crores
9.	National Sector:	
	a). Share of Production:	40%
	b). No. of units:	14
10.	Regional Sector:	
	a). Share of Production:	60%
	b). No. of units:	200 (approx) (70% based in Gujarat)
11.	Job Potential:	50,000 direct & 500,000 indirect
12.	Export	40 million sq. m
13.	Imports	45 million sq. m
14.	Investments in last 6 years:	Rs. 6000 crores

About ICCTAS

The Indian Council of Ceramic Tiles and Sanitaryware (ICCTAS) is a registered body, founded in 1990 and based in Delhi, India. The purpose of ICCTAS is to spread awareness on the benefits and attributes of ceramic tiles and sanitaryware, and work towards establishing standards in quality, service and customer orientation in the industry. Members of this council are all leading brands and organizations in the industry, who follow the standards set by ICCTAS.

ICCTAS aims at providing, through its member manufacturing companies, high quality ceramic tiles and sanitaryware to consumers at reasonable prices. The service and quality responsibility is only taken by

companies who manufacture well-known branded products. You, as an aware and esteemed customer, are urged to buy only branded products that give you this assurance. Remember, Brand is a sign of quality assurance.

Objectives of ICCTAS

- Promote sales of products of Ceramic Tiles & Sanitaryware Industry in Domestic and Overseas Markets.
- Promote interest & co-operation of members on above activities.

Activities of ICCTAS

- Promote/Trade Exhibitions, Campaigns, Events, Seminars in India & Abroad.
- Provide Trade related information on regular basis comprising articles, circulars, periodicals, statistics, etc.
- Joint representation of issues/matters affecting directly/indirectly the industry to Government, Local bodies & Institutions.
- Promote ICCTAS membership in the industry among all manufacturers in Ceramic & Sanitaryware.

Following is the list of ceramic companies for the study

Company Name	Date of inception
Asian Granito	1995
Kajaria ceramics	1985
Murudeshwar Ceramics	1983
Nitco	1966
Orient ceramics	1977
Regency ceramics	1983
Somany ceramics	1969

OBJECTIVES OF THE STUDY

The main objectives of the study are to analyze the profitability, liquidity and solvency of the selected ceramics Industries in India.

In the word of Lord Keynes, "profit is the engine that drives the business enterprise". A business needs profit not only for its existence but also for expansion and modernization through the attraction of fresh capital.

In tune with this, the following are the important objectives of the study.

1. To analyze the financial performance of the company with the help of its Profitability, liquidity solvency and efficiency of assets utilization.
2. To find out the variance among the mean values of ratios in ceramics companies.
3. To ascertain the plus and minus points of the company.
4. To suggest suitable measures to improve the financial health of the companies.

RESEARCH METHODLOGY

The study is an empirical and analytical study based on the secondary data which are collected from the published financial statements viz., Trading and profit and Loss Account and Balance Sheet contained in the annual report of the selected ceramics Industries in India.

A. Data Used

The Trading and Profit and Loss Account and Balance Sheet have taken from the database www. Capitaline.com.

B. Tools Applied

Financial Tools:

- Ratio Analysis

Statistical Tools:

- Mean,
- Standard Deviation,
- Co-efficient of Variation

- ANOVA
- Post-Hoc Test

Following are the ratios applied in this study.

The profitability ratios are

1. **Gross profit ratio:**
   Gross profit /Net sales *100

2. **Net profit Ratio:**
   Net profit/ Sales *100

3. **Operating profit ratio**:
   It is calculated as follows:
   = Operating profit /Net sales * 100 OR
   = 100-Operating ratio. It represents in percentage.

4. **Operating expenses ratio or Operating ratio:**
   = Cost of Goods sold + Operating expenses/Net sales * 100

5. **Other manufacturing expenses ratio:**
   It is calculated as follows:
   = Manufacturing expenses / net sales * 100
6. **Selling and administration ratio:**
   It is calculated as follows:
   = Selling & administration expenses ratio /Net sales * 100
7. **Earnings per Share**:
   It is calculated as follows:
   = Net profit after tax- Preference Dividend/ No. equity shares available

Under liquidity ratios, Short term Liquidity ratios are:

8. **Current ratio**
   = Current assets/ Current Liabilities
9. **Quick ratio**
   Quick assets/ Quick liabilities
   A comparison of the current ratio to quick ratio shall indicate the inventory hold ups.

While considering about long term Liquidity, the ratios are

10. **Debt Equity Ratio**
    Debt Equity ratio is also known as external and internal equity ratio is calculated to measure the relative claims of outsiders and the owners against the firm's assets. This ratio indicates the relationship between the external equities or the outsiders funds and the internal equities or the shareholders' funds thus,

    = Debt/ equity
11. **Proprietary ratio**
    It is a variant of debt equity ratio. It establishes relationship between the proprietors or shareholders' funds and the total tangible assets. It may be expressed as:
    = Shareholders Funds/ Total tangible assets

Under Efficiency or Activity ratio I have taken only the following ratios

12. **Stock Turnover ratio**
    Stock Turnover ratio = Cost of Goods sold / Average stock

13. **Debt Collection period**

    Debtors + Bills receivable / Credit sales* No. working days in a year

14. Credit payment Period

Creditors + Bills payable / Credit Purchases* No. working days

15. Fixed assets Turnover ratio

This ratio establishes the relationship between sales and fixed assets. This ratio indicates he extent to which the investments in fixed assets contribute towards sales. If compared with a previous period, it indicates whether the investment in fixed assets has been judicious or not.

It may be expressed as:

= Sales / Net Fixed assets

This ratio is based on the assumption that investment in fixed assets is made for the purpose of increasing sales.

If the ratio is too high, it reflects that the firm is overtrading on its assets, on the other hand, if the ratio is low, it only represents that the firm has made excessive investments in fixed assets.

As volume of sale is dependent on a variety of factors such as price, quality of goods, nature of salesmanship, marketing, strategies, channels of distribution, etc., it is argued that no direct relationship can be established between sales and fixed assets. Accordingly, it is not recommended for general use.

16. Working capital Turnover ratio

This ratio is used to assets the efficiency with which the working capital has been utilized in a business. This measures the relationship between the net sales and net working capital. This ratio is computed by dividing the net sales by net working capital. It may be expressed as follows:

= Cost of goods sold / Net Working capital

How many number of times the working capital is turned over is revealed by this ratio. It reveals the velocity of the working capital. A high ratio indicates the company's ability to produce a large volume of sales, while a low ratio indicates the company's inability to produce a large volume of sales.

ANALYSIS OF VARIANCE (ANOVA)

Analysis of variance is abbreviated as ANOVA. It is an extremely useful technique concerning researchers in the field of economics, biology, education, psychology, sociology, business/Industry and researches of several other disciplines. This technique is us when multiple sample cases are involved. The significance of the difference between the mean of two samples can be judged through either Z test or the t test, but the difficulty arises when happen to examine the significance of the difference amongst more than two sample means at the same time. The ANOVA technique enables us to perform this simultaneous test and as such is considered to be an important tool of analysis in the hands of a researcher. Using this technique, one can draw inferences about whether the samples have been drawn populations having the same mean.

The ANOVA technique is important in the context of that entire situation where we want to compare more than two populations such as comparing the yield of crop from several varieties of seeds, the gasoline mileage of our automobiles, the smoking habits of five groups of university students and so on. In such circumstances one generally does not want to consider all possible combinations of two populations at a time for that would require a great number of tests before we would be able to arrive at a decision. This would also consume lot of time and money, and even then certain relationship may be left unidentified. Therefore, one quite of all the populations simultaneously.

Professor R. A. Fisher was the first man to use the term 'variance' and, in fact, it was he who developed a very elaborate theory concerning ANOVA, explaining its usefulness in practical field. Later on Professor Snedecor and many others contributed to the development of this technique. ANOVA is essentially a procedure for testing the difference among different groups of data for homogeneity.

ANOVA Technique is used to compare three or more no of groups on the basis of their mean values. In this study also seven companies' performance is to be compared on the basis of their different mean ratios.

Post hoc tests are run to confirm where the differences occurred between groups, they should only be run when you have a shown an overall significant difference in group means (i.e., a significant one-way ANOVA result).

The ANOVA test tells you whether you have an overall difference between your groups, but it does not tell you which specific groups differed - post hoc tests do. Post hoc tests are run to confirm where the differences occurred between groups. Post-hoc tests are termed a posteriori tests; that is, performed after the event (the event in this case being a study).

RESULTS, FINDINGS AND DISCUSSION

Table No. 1
Gross Profit Ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	001-02	Average	SD	COV
Asian Granito	9.04	10.11	13.54	21.93	19.51	19.48	19.29	33.51	0.00	0.00	14.64	10.33	70.53
kajaria Ceramics	12.46	10.62	5.66	8.72	7.88	16.42	16.48	12.25	11.00	7.84	17.45	3.60	32.93
Murudeshwar Ceramics	17.71	6.84	13.73	24.85	24.91	24.22	21.39	19.66	16.02	17.20	18.65	5.68	30.47
Nitco	7.17	2.76	7.77	11.39	13.68	9.97	7.64	8.78	9.64	9.54	8.83	2.88	32.61
Orient Ceramics	8.37	11.15	9.31	6.56	13.92	13.29	13.69	12.01	16.27	14.97	11.95	3.09	25.85
Regency ceramics	-6.01	-2.96	-5.07	-5.97	5.19	7.66	7.13	17.89	21.36	22.54	6.18	11.28	182.68
Somany Ceramics	7.27	8.39	6.22	6.34	6.28	6.67	4.74	3.66	3.07	8.45	6.11	1.81	29.66

Null Hypothesis: All the companies under study have on an average same level of Gross proft Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Gross Profit Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Gross Profit Ratio	Between Groups	1596	6	266.009	5.960	.000
	Within Groups	2811.919	63	44.083		
	Total	4407.974	69			

Source: Computed from respective company's Annual report

From the above table it is understood that the Gross Profit ratio for the selected companies ranges minimum of -6.01 for Regency Ceramics during the year 2010-11 and maximum of 120.13 for Orient Ceramics during the year 2003-04. The minimum average ratio of 6.10 for Somany Ceramic and maximum average ratio of 31.15 for Orient Ceramics. The minimum ratio indicates that the company earned less Gross Profit comparative to the Sales. The maximum ratio indicates that the company would have earned more profit in the selected Ceramics companies.

The minimum ratio of 6.10 Per cent for Somany Ceramics indicates that the company has the lowest average performance compared to other selected companies. The Orient Ceramics has the highest average Gross Profit ratio indicting good performance But the consistency is more only for the Somany Ceramics because of the lowest Co-efficient of Variation 29.66 percent. The Asian Granito has got more volatility as far as performance is concerned, because of the next to the highest Co-efficient of Variation of 70.53 percent.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis and accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in gross profit ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Kajaria ceramics	– Regency	11.27	.006
	- Somany ceramics	11.34	.006
Murudeshwar ceramics	– Nitco	9.819	.026
	- Regency ceramics	12.47	.002
	- Somany ceramics	12.544	.002

From the POST HOC table it is understood that Kajaria ceramics mean value (17.45) differ significantly from Regency ceramics and somany ceramics (6.18, 6.11) respectively in the gross profit ratio.

It is inferred that Murudeshwar ceramics mean value (18.65) differ significantly from Nitco, regency ceramics, and somany ceramics(8.83, 6.18, 6.11) respectively in gross profit ratio.

Kajaria ceramics and murudeshwar ceramics has got higher mean values. So these two companies have performed well during the period comparatively all other companies. The other companies have to improve its gross profit level in the coming years.

Table No. 2
Net Profit Ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	Average	SD	COV
Asian Granito	4.00	4.69	7.53	13.87	13.68	14.16	11.99	17.58	0.00	0.00	8.75	6.34	72.47
kajaria Ceramics	6.48	4.93	1.37	2.86	1.88	8.54	9.60	5.44	4.76	1.36	4.72	2.91	61.58
Murudeshwar Ceramics	3.07	-11.55	0.09	11.22	12.47	12.41	9.81	7.86	3.28	3.59	5.23	7.36	140.77
Nitco	3.69	-1.93	3.74	8.00	8.27	6.71	-0.99	3.34	4.29	5.53	4.07	3.41	83.88
Orient Ceramics	1.96	4.55	2.84	1.16	6.22	3.17	3.29	1.89	2.92	3.52	3.15	1.44	45.68
Regency ceramics	-8.32	-8.08	-9.42	-10.85	-2.62	0.00	-0.32	10.33	9.35	10.20	-0.97	8.41	-864.40
Somany Ceramics	3.35	3.89	2.16	1.29	0.89	1.15	-0.60	0.70	-1.35	2.56	1.40	1.64	117.07

Null Hypothesis: All the companies under study have on an average same level of Net Profit Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Net Profit Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Net Profit Ratio	Between Groups	1013.576	6	168.929	6.083	.000
	Within Groups	1749.667	63	27.772		
	Total	2763.243	69			

Source: Computed from respective company's Annual report

The above table indicates that the Net Profit ratio for the selected companies ranges minimum of-11.55 for Murudeshwar Ceramics during the year 2009-10 and maximum of 17.58 for Asian Granito during the year 2003-04. The minimum average ratio of -0.97 for Regency Ceramics and maximum average ratio of 8.75 of Asian Granito.

The Asian Granito has the highest average ratio indicating good performance. But the consistency is more only for the Orient ceramics because The Minimum ratio of -0.97 for regency Ceramics indicates that the company incurred a heavy indirect expenses, investment pattern or capital of the firm. Murueshwar Ceramics has got more volatility as far as performance is concerned (CV 140.77). Somany Ceramics has got more volatility as far as performance is concerned because of the next to the highest CV of 117.07

Comparing the Gross Profit and net Profit Ratio it is inferred that though Orient Ceramics was able to maintain the highest Gross Profit ratio it was not able to maintain the highest Net profit Ratio. The highest net profit Ratio was for the Asian Granito indicating good performance. For orient ceramics the gap between gross Profit and net profit was wider. More percentage of Gross profit was lost because of indirect expenses. Therefore it resulted less percentage of Net profit ratio.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, we reject the Null hypothesis, i.e., there is significant different between the Ceramic Companies in net

profit ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company	Mean Difference	Significance
Asian Granito – Regency ceramics	9.723	.002
- Somany ceramics	7.34	.042
Kajaria ceramics – Orient ceramics	7.781	.025
- Regency ceramics	11.906	.000
- Somany ceramics	9.529	.003

From the POST HOC table it is understood that Asian Granito, mean value (8.75) differ significantly from Regency Ceramics and Somany ceramics.(-0.97, 1.40) respectively in the net profit ratio.

It is inferred that Kajaria ceramics mean value (4.72) differ significantly from Orient, regency and somaccny ceramics (3.15, -0.97, 1.40) respectively in the net profit ratio.

Table No.3
Operating profit ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	001-02	Aver age	SD	COV
Asian Granito	11.70	12.47	16.97	25.00	22.66	22.47	22.29	38.95	0.00	0.00	17.25	11.84	68.64
kajaria Ceramics	15.93	6.39	14.42	17.08	13.93	20.74	21.70	20.14	22.15	22.04	17.45	5.01	28.69
Murudeshwar Ceramics	30.96	26.81	28.91	33.04	32.47	32.43	29.87	27.93	28.82	26.17	29.74	2.43	8.18
Nitco	11.12	5.62	11.30	13.57	15.43	14.41	11.86	13.41	16.61	19.42	13.28	3.71	27.97
Orient Ceramics	11.46	14.04	13.73	11.06	16.65	1.11	17.88	16.72	24.29	24.01	15.10	6.71	44.43
Regency ceramics	2.00	5.66	3.30	4.72	14.93	16.42	16.10	24.61	31.02	30.20	14.90	10.96	73.61
Somany Ceramics	9.70	11.01	9.97	11.55	11.31	12.74	12.20	11.63	11.23	17.13	11.85	2.07	17.45

Null Hypothesis: All the companies under study have on an average same level of Operating Profit Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Operating Profit Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Operating Profit ratio	Between Groups	3404.614	6	567.436	11.758	.000
	Within Groups	3040.443	63	48.261		
	Total	6445.057	69			

Source: Computed from respective company's Annual report

The above table depicts that the Operating Profit ratio for the selected companies ranges minimum of 2.00 for Regency Ceramics during the year 2010-11 and maximum of 38.95 for Asian Granito during the year 2003-04. The minimum average ratio of 11.85 for Somany Ceramics and maximum average ratio 29.74 for Murudeshwar Ceramics.

The Murudeshwar Ceramics has the highest average ratio 29.74 indicating a good performance compared to other comparing to select for the study.

The consistency is also more for the Murudeshwar Ceramics. The Minimum average operating profit ratio of 11.87 for Somany Ceramics indicates that the operating efficiency is less. Murudeshwar Ceramics has got

Minimum COV 8.17 it shows less volatility as far as performance is concerned as Asian Granito shows high COV 68.63 and hence it is consistency and more volatility.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis and accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in Operating profit ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company	Mean Difference	Significance
Asian Granite - Kajaria	12.529	.003
Murudeshwar – Asian granito	12.490	.003
- Kajaria	25.019	.000
- Nitco	16.456	.000
- Orient	14.646	.000
- Regency	14.845	.000
- Somany	17.894	.000

From the above Post Hoc table reveals that Asian ceramic's operating profit ratio is higher than Kajaria ceramics. Asian ceramics mean value (17.25) differs significantly from Kajaria ceramics.

It is inferred that Murudeshwar ceramics mean value (29.74) differ significantly from Asian Granito, Kajaria ceramics, Nitco, Orient ceramics, Regency ceramics and Somany ceramics (17. 25, 17.45, 13.28, 15.10, 14.90, 11.85 respectively) in the operating profit ratio.

Asian Granito and Murudeshwar ceramics re higher mean values, so these two companies are advised to improve its level of performance in the coming years.

Table No. 4
Operating Expenses Ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	Average	SD	COV
Asian Granito	86.36	84.78	84.22	91.97	77.79	82.07	87.41	94.47	70.83	99.72	85.96	8.27	9.62
kajaria Ceramics	76.19	75.26	76.97	81.45	90.21	77.50	72.12	72.63	73.85	71.96	76.81	5.54	7.21
Murudeshwar Ceramics	68.29	72.15	62.56	60.39	69.23	66.87	65.09	68.76	68.57	72.53	67.44	3.86	5.73
Nitco	89.67	100.74	82.64	86.06	96.80	87.60	97.57	83.42	77.94	78.00	88.04	8.09	9.19
Orient Ceramics	83.70	79.03	74.50	83.95	71.44	74.30	78.73	78.53	191.82	73.00	88.90	36.41	40.96
Regency ceramics	66.70	88.22	87.32	83.45	82.75	81.78	81.05	71.63	67.27	68.12	77.83	8.48	10.90
Somany Ceramics	85.60	82.61	81.67	77.90	79.55	73.10	82.59	79.90	83.17	81.09	80.72	3.43	4.25

Null Hypothesis: All the companies under study have on an average same level of Operating Expenses Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Operating Expenses Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Operating Expenses Ratio	Between Groups	3478.345	6	579.724	2.554	.028
	Within Groups	14299.331	63	226.974		
	Total	17777.676	69			

Source: Computed from respective company's Annual report

It is understood from the above table that the Operating Expenses ratio for the selected companies ranges minimum of 65.09 for Murudeshwar Ceramics during the year 2004-05 and maximum of 191.82 for Orient Ceramics during the year 2002-03. The minimum average ratio of 67.44 for Murudeshwar Ceramics and maximum average ratio of 88.90 percent for Orient Ceramics.

The minimum ratio of 67.44 per cent for Murudeshwar Ceramics indicates that the company has the lowest average Expenditure compared to other selected companies. The orient Ceramics has the highest average operating expenses ratio indicating poor performance but consistency is more only for the Somany Ceramics because of the lowest Co-efficient of Variation 4.25 percent. The Orient Ceramics has got more volatility as far as Expenditure pattern is concerned.

From the ANOVA table it is inferred that since significant value (0.028) is less than the level of significance 0.05, reject the Null hypothesis and accept the alternate hypothesis. i.e., there is significant different between the Ceramic Companies in Operating expenses ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		**Mean Difference**	**Significance**
Nitco	Murudeshwar Ceramics	20.60	0.48
Orient Ceramics	Murudeshwar Ceramics	21.456	0.35

From the POST HOC table it is understood that NITCO and Orient companies have significantly higher Operating Expenses ratio than Murudeshwar Ceramics, and the other differences are not that much significant to discuss.

Nitco and Orient companies are higher mean difference value, so these two companies are advised to keep control on operating expenses ratio.

Table No. 5

Other Manufacturing expenses Ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	11.05	9.85	10.98	10.17	17.22	14.78	35.81	13.62	0.00	0.00	12.35	10.01	81.04
kajaria Ceramics	2.12	2.27	2.01	2.80	3.20	3.05	3.67	3.66	3.36	4.10	3.02	0.71	23.61
Murudeshwar Ceramics	7.22	8.56	7.39	7.96	8.90	9.62	11.67	13.68	13.19	16.06	10.43	3.05	29.23
Nitco	3.49	1.84	1.24	1.15	2.52	2.88	3.69	16.27	15.46	17.10	6.56	6.77	103.07
Orient Ceramics	7.78	8.65	8.89	10.02	8.52	9.62	10.92	8.77	8.63	10.98	9.28	1.07	11.53
Regency ceramics	13.96	19.06	16.66	13.47	13.51	14.00	11.52	11.69	10.11	11.10	13.51	2.70	20.02
Somany Ceramics	6.19	7.94	10.04	10.46	10.26	10.02	9.78	10.10	10.19	13.23	9.82	1.80	18.36

Null Hypothesis: All the companies under study have on an average same level of other manufacturing Expenses Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Other Manufacturing expenses Ratio

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Other Manufacturing Expenses ratio	Between Groups	754.07	6	125.68	05.26	0.000
	Within Groups	1506.69	63	23.926		
	Total	2260.75	69			

Source: Computed from respective company's Annual report

The above table reveals that the Other Manufacturing Expenses ratio for the selected companies ranges minimum of 1.15 for Nitco during the year 2007-08 and maximum of 35.81 for Asian Granito during the year

2004-05. The minimum average ratio of 3.02 for Kajaria Ceramics and maximum average ratio of 13.51 for Regency ceramics.

The minimum ratio of 03.02 for Kajaria Ceramics indicates that the company has the highest average performance compared to other selected companies. The Regency Ceramics has the highest average other manufacturing expenses ratio indicating lower the profitability, but consistency is more only for the Orient Ceramics because of the lowest Co-efficient of Variation 11.53 percent. The orient Ceramics has got more volatility as far as expenditure ratio pattern is concerned.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis and accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in Other manufacturing expenses ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company	**Mean Difference**	**Significance**
Asian Granito - Kajaria Ceramics	9.32	0.001
Murudshwar ceramics - Kajaria Ceramics	7.401	0.020
Regency Ceramics - Kajaria Ceramics	10.484	0.000
- Nitco	6.94	0.360
Somany Ceramics - Kajaria Ceramics	6.797	0.043

From the POST HOC table it is understood that Asian Granitor, Murudeshwar Ceramics, Regency Ceramics and Somany ceramics companies mean values are higher than the Kajaria Ceramics, Nitco.

Asian Granito (mean 12.348) differ significantly from Kajaria by 3.024.

Murudeshwar ceramics (mean 10.425) differ significantly from Kajaria by 4.947.

Regency Ceramics (mean 13.508) differ significantly from Kajaria & Nitco (1.864, 5.404) respectively.

Somany Ceramics (mean 9.821) differ significantly from Kajaria by 5.51 in other manufacturing expenses ratio.

Table No. 6

Selling and Administration Expenses Ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	16.62	18.89	19.19	17.90	11.73	9.87	15.25	24.49	0.00	0.27	13.42	8.08	60.22
kajaria Ceramics	7.91	9.58	8.01	9.57	13.28	11.60	11.95	11.19	11.15	13.44	10.77	1.96	18.18
Murudeshwar Ceramics	13.39	16.99	14.27	12.83	12.52	10.94	10.20	11.70	11.75	10.64	12.52	2.02	16.10
Nitco	21.29	26.86	20.61	20.72	23.39	22.99	24.40	24.13	20.49	18.15	22.30	2.52	11.29
Orient Ceramics	14.14	14.81	15.38	18.41	16.39	18.37	14.56	12.20	12.89	17.91	15.51	2.22	14.30
Regency ceramics	15.26	17.21	20.99	21.08	22.68	21.75	26.74	23.34	20.30	22.99	21.23	3.22	15.14
Somany Ceramics	12.51	13.00	13.20	16.74	18.66	19.54	17.45	16.15	21.61	21.72	17.06	3.40	19.96

Null Hypothesis: All the companies under study have on an average same level of Selling Administration Expenses Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Selling and administration Expenses Ratio

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Selling and Administration Expenses ratio	Between Groups	1145.06	6	190.84	12.56	0.000
	Within Groups	957.60	63	15.20		
	Total	2102.66	69			

Source: Computed from respective company's Annual report

The above table it is clearly indicates that the Selling and Administration Expenses ratio for the selected companies ranges minimum of 7.91 for Kajaria Ceramics during the year 2010-11 and maximum of 26.74 for Regency Ceramics during the year 2004-05. The minimum average ratio of 10.77 for Kajaria Ceramics and maximum average ratio of 22.30 for Nitco.

The minimum ratio of 10.77 for Kajaria Ceramics indicates that the company has the highest average performance compared to other selected companies. The Nitco has the highest average Selling and Administration expenses ratio indicating lower profitability, and consistency is also more only for the Nitco because of the lowest Co-efficient Variation 11.29 percent. The Asian Granito has got more volatility as far as selling and Administration expenses ratios are concerned, because of the highest CV of 60.22 percent.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis and accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in Selling and Administration expenses ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		Mean Difference	Significance
Nitco	-Asian Ceramics	8.88	0.000
	- Kajaria ceramics	11.53	0.000
	-Murudeshwar Ceramics	09.78	0.000
	-Orient Ceramics	06.79	0.004
Regency Ceramics	-Asian Granito	07.81	0.001
	-Kajaria Ceramics	10.47	0.000
	-Murudeshwar ceramics	0 8.71	0.000
	-Orient Ceramics	5.72	0.26
Somany ceramics	-Kajaria ceramics	6.29	0.010

From the above POST HOC Table reveals that Nitco's selling and Administration expenses ratio is higher than all other companies. Nitco (mean 22.303) differ significantly from Asian granite, Kajaria Ceramics, Murudeshwar Ceramics, Orient Ceramics (13.421, 10.765, 12.523 & 15.506 respectively) in the Selling and Administration expenses ratio.

It is inferred that Regency ceramics (mean 21.234) differ significantly from Asian Granito, Kajaria Ceramics, Murudeshwar Ceramics, Orient Ceramics (13.421, 10.7674, 12.523 & 15.506 respectively) in the selling & administrative expenses ratio.

It is inferred that Somany ceramics (mean 17.058) differ significantly from Kajaria Ceramics 10.768 in the Selling and Administration expenses ratio.

Nitco, Regency Ceramics and Somany Ceramics are higher mean value, so these three companies are advised to keep control on Selling and administration expenses ratio.

Table No. 7

Earnings Per Share Ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	Average	SD	COV
Asian Granito	9.37	887.00	11.88	12.39	14.97	10.67	7.07	4.49	0.00	0.00	95.78	278.05	290.29
kajaria Ceramics	7.92	4.71	1.18	2.01	1.01	3.73	16.83	8.94	6.60	1.79	5.47	4.90	89.48
Murudeshwar Ceramics	1.51	0.00	0.10	15.00	15.30	13.94	9.52	6.77	2.36	1.93	6.64	6.33	95.23
Nitco	8.11	0.00	7.60	15.54	16.54	8.85	6.15	4.46	5.26	5.96	7.85	4.97	63.30
Orient Ceramics	8.95	10.56	5.79	2.27	10.95	8.89	7.44	4.00	5.47	6.54	7.09	2.81	39.68
Regency ceramics	0.00	0.00	0.00	0.00	0.00	0.04	0.00	12.41	9.24	8.81	3.05	4.99	163.56
Somany Ceramics	6.68	29.13	12.41	5.72	3.65	4.49	0.00	0.00	0.00	6.43	6.85	8.73	127.38

Null Hypothesis: All the companies under study have on an average same level of earnings per Share.						
Alternate Hypothesis: All the companies under study do not have on an average same level of Earnings per Share.						
ANOVA						
		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Earnings per Share	Between Groups	68998.09	6	11499.68	1.04	0.409
	Within Groups	697592.32	63	11072.90		
	Total	766590.40	69			

Source: Computed from respective company's Annual report

It is learnt from the above table that the Earning per Share ratio for the selected companies ranges minimum of Rs. 0.04 for Regenct Ceramics during the year 2005-06 and maximum of Rs. 29.13 for Somany ceramics during the year 2009-10. The minimum average ratio of Rs. 3.05 for Regency Ceramics and maximum average ratio of Rs. 95.78 for Asian Granito.

The minimum ratio of Rs. 03.05 for Regency ceramics indicates that the company has the lowest earning per share compared to other selected companies. The Asian Granito has the highest average Earning Per Share indicating good earning capacity of the company, consistency is more for the Orient Ceramics because of the lowest CV 39.68 percent. The Asian Granito has got more volatility as far as Earning Per Share is concerned.

From the ANOVA table it is inferred that since significant value (0.409) is more than the level of significance 0.05, accept the Null hypothesis and reject the alternate hypothesis. i.e., there is no significant difference between the Selected Ceramic Companies in India in Earnings per Share.

Table no. 8
Current ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	3.66	3.23	4.17	3.25	3.66	2.97	2.55	2.30	1.92	1.40	2.91	0.86	29.63
kajaria Ceramics	1.29	2.10	3.40	3.52	3.37	3.14	1.90	3.76	5.92	6.50	3.49	1.65	47.26
Murudeshwar Ceramics	4.92	4.72	5.25	4.49	3.34	3.57	3.46	3.47	3.50	3.26	4.00	0.76	18.94
Nitco	2.46	3.35	3.64	3.81	2.77	2.41	3.60	4.38	4.48	4.08	3.50	0.75	21.35
Orient Ceramics	2.14	1.90	2.16	2.26	1.95	1.93	2.08	2.10	2.28	2.45	2.13	0.17	8.17
Regency ceramics	2.16	2.89	3.22	2.39	2.60	2.20	3.19	1.44	2.06	1.77	2.39	0.59	24.57
Somany Ceramics	1.92	1.82	2.18	2.38	2.01	2.01	2.09	2.15	2.34	2.74	2.16	0.27	12.33

Null Hypothesis: All the companies under study have on an average same level of Current Ratio.						
Alternate Hypothesis: All the companies under study do not have on an average same level of Current Ratio						
ANOVA						
		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Current Ratio	Between Groups	33.008	6	5.501	7.64	.000
	Within Groups	45.380	63	.720		
	Total	78.387	69			

Source: Computed from respective company's Annual report

It is Clear from the above table that the Current Ratio for the selected companies ranges minimum of 1.29 for Kajaria Ceramics during the year 2010-11 and maximum of 5.92 for Kajaria Ceramics during the year 2002-03. The minimum average ratio of 2.13 for the Orient Ceramics and maximum average ratio of 4.00 for Murudeshwar Ceramics.

The minimum ratio of 2.13 for Orient Ceramics indicates that the company has got the standard ratio of 2:1. The Murudeshwar ceramics has the highest average Current ratio indicating the company is having good short term paying capacity, consistency is more for Orient ceramics because of the lowest CV 8.17 percent. The Kajaria ceramics has got more volatility as far as Performance is concerned.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in Current Ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		**Mean Difference**	**Significance**
Kajaria ceramics	-Orient ceramics	01.37	00.11
	-Somany Ceramics	01.33	00.015
Murudeshwar Ceramics	-Orient Ceramics	01.88	00.000
	-Regency Ceramics	01.61	00.001
	-Somany Ceramics	01.84	00.000
Nitco	-Orient Ceramics	01.37	00.010
	-Somany Ceramics	01.33	00.014

From the POST HOC table it is understood that Kajaria Ceramics has higher mean value than Orient Ceramics and somany ceramics.

Murudeshwar Ceramics has higher mean value the Orient ceramics, regency Ceramics and Somany ceramics.

Nitco has higher mean value than Orient ceramics and Somany ceramics. Kajaria ceramics, Murudeshwar Ceramics and Nitco have very good short term liquidity because of higher mean value. The other companies have improve its Current ratio.

Table no. 9
Quick Ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	2.65	2.70	3.92	2.68	2.27	1.32	1.11	2.84	1.40	1.35	2.22	0.91	40.70
kajaria Ceramics	0.82	1.31	1.90	1.67	1.68	2.21	1.29	2.95	4.17	4.26	2.23	1.19	53.67
Murudeshwar Ceramics	1.05	1.13	1.95	2.04	1.46	1.76	1.56	1.48	1.35	1.26	1.50	0.33	22.01
Nitco	0.91	1.88	2.29	2.28	1.18	1.14	1.60	2.48	3.31	0.71	1.78	0.82	46.13
Orient Ceramics	1.15	0.90	1.11	1.36	1.93	1.45	1.24	1.01	1.30	1.31	1.28	0.28	22.22
Regency ceramics	1.41	1.85	2.08	1.25	1.32	1.46	1.84	0.90	1.37	1.37	1.49	0.34	23.23
Somany Ceramics	1.30	1.29	1.50	1.47	1.06	0.86	0.79	0.81	0.91	1.23	1.12	0.27	24.15

Null Hypothesis: All the companies under study have on an average same level of Quick Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Quick Ratio

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Quick Ratio	Between Groups	11.44	6	1.91	4.04	.002
	Within Groups	29.72	63	.48		
	Total	41.16	69			

Source: Computed from respective company's Anual report

It is clearly understood from the above table that the Quick ratio for the selected companies ranges minimum of 0.79 for Somany Ceramics during the year 2004-05 and maximum of 4.26 for Kajaria Ceramics during the year 2001-02. The minimum average ratio 1.12 for Somany ceramics and maximum average ratio of 2.23 for Kajaria Ceramics..

The minimum average Quick ratio of 1.12 for Somany ceramics indicates that the company has got the ideal ratio of 1:1. The Kajaria ceramics has the highest average quick ratio indicating that the company is having the highest liquid condition to pay off the short term debt, and consistency is more for Murudeshwar Ceramics because of the lowest CV 22.01 percent. The Kajaria ceramics has got more volatility as far as Quick ratios are concerned.

From the ANOVA table it is inferred that since significant value (0.002) is less than the level of significance 0.05, reject the Null hypothesis and accept the alternate hypothesis. i.e., there is significant different between the Ceramic Companies in Quick Ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		**Mean Difference**	**Significance**
Asian Granito	- Orient Ceramics	00.95	00.045
	-Somany Ceramics	01.10	00.011
Kajaria Ceramics	-Orient Ceramics	00.95	00.044
	-Somany Ceramics	01.10	00.011

From the POST HOC table it is understood that Asian Granito has higher mean value than Orient Ceramics and Somany ceramics.

Kajaria Ceramics has higher mean value the Orient ceramics and Somany ceramics.

Asian Granito and kajaria ceramics have very good short term liquidity because of higher mean value. The other companies have to improve its Quick ratio.

Table no. 10
Debt Equity Ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	0.64	0.66	0.57	0.36	0.80	0.96	0.98	0.89	0.13	0.27	0.63	0.30	47.17
kajaria Ceramics	1.25	1.38	2.00	2.17	2.35	1.49	1.22	1.48	1.66	2.04	1.70	0.41	23.78
Murudeshwar Ceramics	0.48	0.69	0.71	0.77	0.81	0.87	0.74	0.76	0.65	0.57	0.71	0.11	16.30
Nitco	1.06	0.89	0.56	0.25	0.43	0.32	1.41	1.39	1.26	1.33	0.89	0.46	52.10
Orient Ceramics	1.49	1.03	1.38	1.96	1.30	1.13	1.50	1.60	1.96	2.25	1.56	0.39	25.03
Regency ceramics	6.90	3.77	4.24	2.53	1.92	1.80	1.96	1.25	1.54	1.63	2.75	1.75	63.72
Somany Ceramics	1.89	1.98	2.15	2.55	2.20	2.40	2.62	2.40	2.19	1.85	2.22	0.27	12.03

Null Hypothesis: All the companies under study have on an average same level of Debt Equity Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Debt Equity Ratio

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Debt Equity Ratio	Between Groups	39.09	6	6.52	12.05	.000
	Within Groups	34.05	63	.54		
	Total	73.13	69			

Source: Computed from respective company's Annual report

The above table clearly indicates that the Debt Equity Ratio for the selected companies ranges between minimum of 0.13 for Asian Granites during the year 2002-03 and maximum of 4.24 for Regency Ceramics during the year 2008-09. The minimum average ratio of 0.63 for Asian Granito and maximum average ratio of 2.75 for Regency Ceramics. The minimum ratio indicates that the company rely more percentage of own funds and low percentage of debt capital. The maximum ratio indicates that the company rely more on debt funds and less on own funds. The Standard Deviation and Co-efficient Variation indicates the consistency of the companies using their Debt equity ratio. The minimum Co-efficient of Variation indicates more consistency in maintaining the Debt equity ratio in the selected years.

The Minimum average Debt Equity ratio of 0.62 for Asian Granito indicates that the company depends more on own funds, it is advisable to the company. The Regency Ceramics has the highest average Debt equity ratio indicating that the company depends more on debt capital so the company ia in a position to pay off dues such as debenture interest in time. In general excess of debt capital is not advisable, and consistency is more for Somany ceramics because of the lowest CV 12.02 percent. The Regency Ceramics has got more volatility as far as Debt equity ratios are concerned.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis, accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in Debt equity Ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		Mean Difference	Significance
Kajaria Ceramics	- Asian granito	01.08	0.03
Rengency Ceramics	-Asian Granito	02.13	00.000
	-Kajaria Ceramics	01.05	00.034
	-Murudeshwar Ceramics	02.05	00.000
	-Nitco	01.87	00.000
	-Orient Ceramics	01.20	00.010
Somany Ceramics	-Asian Granito	01.60	00.000
	-Murudeshwar Ceramics	01.52	00.000
	-Nitco	01.33	00.003

From the POST HOC table it is understood that kajaria Ceramics has higher mean value than Asian Granito.

Regency Ceramics has higher mean value than the following companies Asian Granito, Kajaraia Ceramics, Murudeshwar Ceramics, Nitco and Orient Ceramics.

Somany Ceramics has higher mean value than Asian Ceramics, Murudeshwar ceramics and Nitco.

Kajaria ceramics, Regency ceramics and Somany Ceramics are higher mean values. It indicates that these companies rely more on debt and less on own funds. So these Companies have to improve its debt equity ratio.

Table no. 11
Proprietary Ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	Average	SD	COV
Asian Granito	1.18	1.10	1.20	1.76	1.54	1.57	0.90	0.76	0.88	0.78	1.17	0.35	30.34
kajaria Ceramics	0.46	0.54	0.49	0.45	0.39	0.54	0.49	0.53	0.52	0.44	0.49	0.05	10.25
Murudeshwar Ceramics	1.00	0.82	0.83	0.80	0.75	0.73	0.74	0.75	0.80	0.81	0.80	0.08	9.72
Nitco	0.70	1.10	1.21	1.78	1.29	1.01	0.40	0.30	0.50	0.50	0.88	0.48	54.17
Orient Ceramics	0.87	0.76	0.59	0.51	0.67	0.69	0.53	0.45	0.40	0.35	0.58	0.17	28.43
Regency ceramics	0.19	0.31	0.27	0.37	0.45	0.45	0.43	0.60	0.47	0.45	0.40	0.12	29.33
Somany Ceramics	0.59	0.62	0.49	0.41	0.43	0.37	0.33	0.34	0.37	0.44	0.44	0.10	22.82

Null Hypothesis: All the companies under study have on an average same level of Proprietary Ratio.						
Alternate Hypothesis: All the companies under study do not have on an average same level of Proprietary Ratio						
ANOVA						
		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Proprietary Ratio	Between Groups	4.77	6	00.794	13.51	.000
	Within Groups	3.71	63	00.059		
	Total	8.47	69			

Source: Computed from respective company's Annual report

It is very clear that the Proprietary ratio for the selected companies ranges minimum of 0.27 for Regency Ceramics during the year 2008-09 and maximum of 2.71 for Nitco during the year 2007-08. The minimum average ratio of 0.40 for Regency Ceramics and maximum average ratio of 0.88 for Nitco.

The minimum average Proprietary ratio of 0.40 for regency ceramics indicates that the company has got 0.40 paise of shareholders' funds are there in one rupee of total tangible assets.

The Nitco has the highest average proprietary ratio indicating that the company has got 0.88 paise of shareholders' funds in one rupee of total tangible assets. Consistency is more for Murudeshwar Ceramics because of the lowest CV of 9.71 percent. The Nitco has got more volatility as far as performance is concerned.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, we reject the Null hypothesis, we accept the alternate hypothesis. i.e., there is significant difference between the Ceramic Companies in Proprietary Ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		**Mean Difference**	**Significance**
Asian Granito	-Kajaria Ceramics	00.69	00.000
	-Murudeshwar Ceramics	00.37	00.022
	-Orient ceramics	00.59	00.000
	-Regency Ceramics	00.77	00.000
	-Somany Ceramics	00.73	00.000
Murudeshwar Ceramics	-Regency Ceramics	00.40	00.007
	-Somany Ceramics	00.370	00.022
Nitco	-Kajaria Ceramics	00.40	00.010
	-Regency Ceramics	00.49	00.001
	-Somany Ceramics	00.44	00.003

From the POST HOC Table it is understood that Asian Granito has highest mean value than Kajaria ceramics, Murudeshwar ceramics, orient Ceramics, regency Ceramics and Somany Ceramics.

Murudeshwar ceramics has highest mean value than the following companies Regency Ceramics and Somany Ceramics.

Nitco has highest mean value than Kajaria Ceramics, Regency ceramics and Somany Ceramics.

Asian ceramics, Murudeshwar ceramics and Nitco has the highest Mean values indicating that the company has got more paise of shareholders' funds in one rupee of total tangible assets.

Table no. 12

Stock Turnover Ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	2.83	2.40	2.40	1.68	2.08	1.97	2.11	0.86	0.07	41.64	5.80	12.62	217.39
kajaria Ceramics	4.78	3.94	3.69	2.64	3.11	3.88	4.22	3.95	3.24	3.13	3.66	0.63	17.24
Murudeshwar Ceramics	0.82	0.77	1.07	1.42	1.76	1.85	2.13	2.01	1.69	1.40	1.49	0.48	32.21
Nitco	1.25	1.46	2.72	2.64	2.43	2.26	2.56	3.41	3.61	3.80	2.61	0.84	32.26
Orient	3.51	3.49	4.03	4.21	4.81	3.29	3.03	2.95	8.28	3.62	4.12	1.57	37.98

Ceramics													
Regency ceramics	4.69	4.06	4.26	2.57	2.41	2.72	3.12	4.28	3.96	6.24	3.83	1.17	30.57
Somany Ceramics	6.22	6.24	6.65	4.52	3.25	2.58	26.00	2.69	2.48	2.89	6.35	7.10	111.78
Null Hypothesis: All the companies under study have on an average same level of Stock Turnover Ratio.													
Alternate Hypothesis: All the companies under study do not have on an average same level of Stock Turnover Ratio													

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Stock Turnover Ratio	Between Groups	171.555	6	28.592	0.932	0.479
	Within Groups	1933.003	63	30.683		
	Total	2104.558	69			

Source: Computed from respective company's Annual report

The above table clearly depicts that the Stock Turnover ratio for the selected companies ranges minimum of 0.07 for Asian Granito during the year 2002-03 and maximum of 41.64 for Asian Granito during the year 2001-02. The minimum average ratio 1.49 for Murudeshwar Ceramics and maximum average ratio of 5.80 for Asian Granito.

The minimum average Stock Turnover ratio of 01.49 for Murudeshwar Ceramics indicates that the company is having low velocity of conversion of stock into sales compared to other selected companies. The Asian Granito has the highest average Stock turnover ratio indicates efficient management of inventory because more frequently the stocks are sold, the lesser the amount of money is required to finance the inventory. Consistency is more for Kajaria Ceramics because of the lowest CV of 17.24 per cent. The Asian Granito has got more volatility as far as Stock turnover is concerned, because of the highest CV of 217.39 per cent.

From the ANOVA table it is inferred that since significant value (0.479) is more than the level of significance 0.05, we accept the Null hypothesis, we reject the alternate hypothesis. There is no significant difference between the Selected Ceramic Companies in India in Stock Turnover Ratio.

Table no. 13

Debt Collection Period

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	60.83	58.02	56.44	74.12	75.37	65.87	56.78	128.05	0.00	184.28	75.98	49.01	64.51
kajaria Ceramics	34.84	38.36	37.22	51.95	55.49	56.24	60.79	73.56	78.07	87.21	57.37	17.96	31.30
Murudeshwar Ceramics	45.21	63.26	90.63	93.77	71.60	62.88	45.32	42.96	32.24	53.09	60.10	20.48	34.08
Nitco	57.42	75.17	58.53	54.79	38.00	39.30	58.60	63.49	98.24	93.98	63.75	20.19	31.67
Orient Ceramics	50.81	45.42	42.89	69.29	67.93	59.46	57.90	49.26	58.62	41.07	54.27	9.95	18.33
Regency ceramics	62.72	69.50	61.24	70.00	84.26	66.34	79.27	65.45	71.30	73.08	70.32	7.18	10.21
Somany Ceramics	66.48	68.72	67.10	71.32	75.53	58.10	55.05	46.68	44.43	43.00	59.64	11.90	19.94
Null Hypothesis: All the companies under study have on an average same level of Debt Collection period Ratio.													
Alternate Hypothesis: All the companies under study do not have on an average same level of Debt Collection period Ratio													

ANOVA

Debt Collection Period		**Sum of Squares**	**DF**	**Mean Square**	**F**	**SIG**

	Between Groups	3501.20	6	583.54	01.07	0.394
	Within Groups	34594.84	63	549.12		
	Total	38096.04	69			

Source: Computed from respective company's Annual Report

From the above table it is understood that the Debtors Turnover ratio for the selected companies ranges minimum of 32.24 days for Murudeshwar Ceramics during the year 2002-03 and maximum of 184.28 days for Asian Granito during the year 2001-02. The minimum average ratio of 54.27 days for Orient Ceramics and maximum average ratio of 75.98 days for Asian Granito.

The minimum average Debt collection period of 54.27days for Orient Ceramics indicates that the company has better quality of debtors as a short collection period implies quick payment by debtors compared to other selected companies. The Asian Granito has the highest average Debt Collection period indicates inefficient collection performance which in turn adversely affects the liquidity or short term paying capacity of a firm out of its current liabilities. Moreover, longer the average collection period, larger is the chances of bad debts. Consistency is more for Regency Ceramics because of the lowest CV of 10.21 per cent. The Asian Granito has got more volatility as far as debt collection period is concerned, because of the highest CV of 64.51 per cent.

From the ANOVA table it is inferred that since significant value (0.394) is more than the level of significance 0.05, we accept the Null hypothesis, we reject the alternate hypothesis. There is no significant difference between the Selected Ceramic Companies in India in Debt Collection period Ratio.

Table no. 14
Credit Payment Period

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	92.39	112.14	94.77	259.37	200.32	234.44	256.99	388.82	476.00	202.60	231.78	124.75	53.82
kajaria Ceramics	145.04	121.33	85.70	102.11	102.15	91.26	194.35	106.65	80.37	85.97	111.49	34.93	31.33
Murudeshwar Ceramics	291.75	395.15	271.98	239.01	239.28	253.95	200.44	286.00	317.06	483.92	297.85	84.07	28.23
Nitco	274.19	261.32	143.30	129.75	139.68	169.97	118.50	110.86	129.23	134.36	161.12	58.44	36.27
Orient Ceramics	177.42	192.67	180.70	188.68	184.51	209.82	199.44	235.59	212.83	185.81	196.75	18.04	9.17
Regency ceramics	221.43	222.39	198.03	348.84	338.46	250.79	257.80	422.42	227.62	366.28	285.41	76.85	26.93
Somany Ceramics	117.49	153.32	132.68	175.07	248.34	242.91	234.24	237.70	276.97	216.59	203.53	54.76	26.90

Null Hypothesis: All the companies under study have on an average same level of Credit Payment period.

Alternate Hypothesis: All the companies under study do not have on an average same level of Credit Payment period.

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Credit Payment Period	Between Groups	261437.66	6	43572.94	8.36	0.000
	Within Groups	328464.71	63	5213.73		
	Total	589902.37	69			

Source: Computed from respective company's Annual report

It is clear from the above table the Creditors Turnover ratio for the selected companies' ranges minimum of 85.97 for Kajaria Ceramics during the year 2008-09 and maximum of 483.92 for Murudeshwar Ceramics during the year 2001-02. The minimum average ratio 111.49 for Kajaria Ceramics and maximum average ratio of 297.85 for Murudeshwar Ceramics.

The minimum average Credit Payment Period of 111.49 for Kajaria Ceramics indicates that the company has better liquidity position and the low average no. of days taken by the company to pay its debts. The Murudeshwar Ceramics has the highest average credit payment period indicates greater credit period enjoyed by the company and consequently larger benefits reaped from credit suppliers. Consistency is more for Orient ceramics because of the lowest CV of 9.17 per cent. The Asian Granito has got more volatility as far as performance is concerned, because of the highest CV of 53.82 per cent.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, we reject the Null hypothesis, we accept the alternate hypothesis i.e., there is significant difference between the Selected Ceramic Companies in India in Credit payment Period Ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		Mean Difference	Significance
Asian Granito	-Kajaria Ceramics	120.29	0.007
Murudeshwar Ceramics	-Kajaria ceramics	180.36	0.000
	-Nitco	136.74	0.001
	-Orient Ceramics	101.11	0.040
Regency Ceramics	-Kajaria Ceramics	173.91	0.000
	-Nitco	124.29	0.005

From the POST HOC Table it is understood that Asian Granito has higher mean value than Kajaria ceramics.

Murudeshwar ceramics has highest mean value than the following companies regency Ceramics Nitco and Orient Ceramics.

Regency Ceramics has higher mean value than Kajaria Ceramics.

The minimum mean values Credit Payment Period indicates that the company has better liquidity position and the low average no. of days taken by the company to pay its debts. The Asian Granito, Murudeshwar Ceramics and Regency ceramics have the highest average credit payment period indicates greater credit period enjoyed by the company and consequently larger benefits reaped from credit suppliers.

Table no. 15

Fixed Assets Turnover ratio

Company Name	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	Average	SD	COV
Asian Granito	2.66	2.17	2.10	2.13	3.61	3.76	2.16	0.70	0.88	79.44	9.96	24.43	245.28
kajaria Ceramics	1.98	2.13	2.02	1.48	1.15	1.32	1.65	1.33	1.22	1.10	1.54	0.38	24.98
Murudeshwar Ceramics	0.59	0.42	0.56	0.54	0.72	0.64	0.70	0.67	0.59	0.43	0.59	0.10	17.59
Nitco	1.27	1.21	1.81	3.48	3.67	1.64	2.00	1.75	1.55	1.43	1.98	0.87	44.16
Orient Ceramics	3.66	3.14	2.56	2.28	2.73	2.59	1.82	1.54	1.23	1.11	2.27	0.83	36.77
Regency ceramics	1.93	1.51	1.34	1.06	1.06	0.99	0.97	1.14	1.24	1.08	1.23	0.30	24.11
Somany Ceramics	4.10	4.12	3.40	2.40	2.24	1.68	1.30	1.22	1.08	1.22	2.28	1.20	52.75

Null Hypothesis: All the companies under study have on an average same level of Fixed Assets Turnover Ratio

Alternate Hypothesis: All the companies under study do not have on an average same level of Fixed Assets Turnover Ratio

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Fixed Assets Turnover ratio	Between Groups	614.55	6	102.43	1.20	0.32
	Within Groups	5400.67	63	85.73		
	Total	6015.21	69			

Source: Computed from respective company's Annual report

The above table clearly depicts that the fixed Assets Turnover ratio for the selected companies ranges minimum of 0.42 for Murudeshwar Ceramics during the year 2009-10 and maximum of 79.44 for Asian Granito during the year 2001-02. The minimum average ratio 0.59 for Murudeshwar Ceramics and maximum average ratio 9.96 for Asian Granito.

The minimum average Fixed Assets Turnover Ratio of 0.42 for Murudeshwar Ceramics indicates that the company has generated low sales by every rupee invested in fixed assets as compared to other selected companies. The Asian Granito has the highest average Fixed Assets Turnover ratio indicates greater efficiency in the utilization of fixed assets. Consistency is more for Murudeshwar Ceramics because of the lowest CV of 17.59 per cent. The Asian Granito has got more volatility as far as Fixed assets turnover ratios are concerned, because of the highest CV of 245.28 per cent.

From the ANOVA table it is inferred that since significant value (0.320) is more than the level of significance 0.05, we accept the Null hypothesis, we reject the alternate hypothesis i.e., there is no significant difference between the Selected Ceramic Companies in India in Fixed Assets Turnover Ratio.

Table no. 16
Working Capital Turnover Ratio

Company Name	**2010-11**	**2009-10**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2003-04**	**2002-03**	**2001-02**	**Average**	**SD**	**COV**
Asian Granito	1.81	1.60	1.45	1.10	1.43	1.76	2.02	0.74	0.04	4.48	1.64	1.15	70.27
kajaria Ceramics	9.76	3.54	2.44	2.03	2.30	2.54	3.49	1.97	1.52	1.40	3.10	2.45	78.97
Murudeshwar Ceramics	0.81	0.74	0.83	0.99	1.41	1.30	1.64	1.61	1.45	1.22	1.20	0.34	28.10
Nitco	1.32	0.91	1.42	1.56	2.40	2.64	2.00	1.92	1.50	1.60	1.73	0.52	30.03
Orient Ceramics	3.21	4.03	3.84	3.25	3.14	3.14	2.95	3.33	7.45	3.15	3.75	1.34	35.83
Regency ceramics	3.01	2.23	2.19	2.11	1.90	2.02	1.92	5.15	2.55	3.24	2.63	0.99	37.80
Somany Ceramics	4.19	3.96	3.78	2.97	3.03	2.93	3.08	3.16	2.65	2.50	3.23	0.56	17.45

Null Hypothesis: All the companies under study have on an average same level of Working Capital Turnover Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Working capital Turnover Ratio

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Working Capital Turnover Ratio	Between Groups	54.77	6	9.13	5.91	.000
	Within Groups	97.34	63	1.55		
	Total	152.10	69			

Source: Computed from respective company's Annual report

It is very clear that the above table shows that the Working Capital Turnover ratio for the selected companies ranges minimum of 0.04 for Asian Granito during the year 2002-03 and maximum of 7.45 for Orient Ceramics during the year 2002-03. The minimum average ratio 1.2 for Murudeshwar Ceramics and maximum average ratio of 3.75 for Orient Ceramics.

The minimum average Working capital turnover ratio of 1.20 for Murudeshwar Ceramics indicates that the company has generated low sales by every rupee mobilized from current assets. The Orient Ceramics has the highest average working capital turnover ratio indicates that the company has generated more sales by every rupee mobilized from current assets. Consistency is more for Somany ceramics because of the lowest CV of 17.45 per cent. The Kajaria has got more volatility as far as Working capital turnover ratios are concerned, because of the highest CV of 78.97 per cent.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, we reject the Null hypothesis, i.e., there is significant difference between the Ceramic Companies in working capital turnover Ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company		Mean Difference	Significance
Kajaria Ceramics	- Murudeshwar Ceramics	1.90	0.018
Orient Ceramics	- Asian Granito	2.11	0.006
	- Murudeshwar Ceramics	2.55	0.000
	- Nitco	2.02	0.010
Somany Ceramics	- Murudeshwar ceramics	2.03	0.009

From the POST HOC Table it is understood that Kajaria Ceramics has higher mean value than Mururdeshwar Ceramics.

Orient Ceramics has highest mean value than the following companies Asian Granito, Murudeshwar Ceramics, and Nitco.

Somany Ceramics has higher mean value than Murudeshwar Ceramics.

The low mean value of other companies indicates that the minimum no of times the companies generated sales by every rupee mobilized from current assets. The highest mean value of Kajaria ceramics, Orient ceramics and Somany Ceramics indicates that the more no of times company has generated sales by every rupee mobilized from current assets.

FINDINGS

Comparing all the profitability ratios, it is inferred that out of 7 ratios, Asian Granito and Murudeshwar ceramics have got same uniformity. Asian Granito has got the highest performance in case of net profit and earnings per share. Murudeshwar ceramics has got maximum operating profit and minimum operating expenses ratios. Other companies have not any uniformity in terms of the selected profitability ratios.

By comparing the Liquidity ratio, No company is maintaining uniformity. Considering short term liquidity, Murudeshwar and Kajaria Ceramics have performed well and by considering long term liquidity Asian Granito and Regency Ceramics have performed well.

Comparing the efficiency ratios it is inferred that Asian Granite has got uniformity in terms of Stock Turnover ratio & fixed assets turnover ratio. In these two ratios, it has got maximum performance. Orient ceramics also have better performance in terms of Debt Collection period and Working capital Turnover ratio.

Consolidating all the three broad classifications it is inferred that Asian Granito and Murudeshwar Ceramics were better performed companies compared to other selected companies.

CONCLUSION

Based on the analysis and its subsequent findings it is concluded that the Asian Granito company performed better followed by Murudeshwar Ceramics and Kajaria Ceramics companies. In terms of effective utilization of assets Orient Ceramics, Asian Granito and Kajaria Ceramics ranked better respectively.

SUGGESTION

- Few companies in the selected ceramics company performed well.
- But Orient Ceramics, Nitco, Regency Ceramics have to reduce the Manufacturing, selling and Administration expenses, as this boost the earnings of the company.
- Asian granite has to maintain the quick recovery from debtors as this will play as a fuel in the business vehicle and also to avoid the unnecessary Bad debts.

Murudeshwar Ceramics has to take steps to make payment to creditors in time as it affects goodwill of the company and also lose the good image and reputation among the minds of the suppliers.

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