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Financial Performance Evaluation of Ceramic Industries of Bikaner

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Abstract

Financial analysis is a procedure of pinpointing the financial strength and weakness of a company by scrutinizing the items, balance sheet and profit and loss account. Financial evaluation of an enterprise generally assess the assets, shareholder equity and liability, revenue and expenses. Financial ratio analysis is a prominent tool used to assess the financial performance of any company. In the present study the financial performance of various ceramic companies of Bikaner district was assessed through ration analysis.

Key words- *Financial analysis, performance, ration analysis, ceramic industry, and Bikaner district.*

Introduction

A ceramic may be defined as "an inorganic non-metallic solid made up of either metal or non-metal compounds that have been shaped and hardened by heating to high temperatures." Important physical characteristics of ceramics which enhance their economic importance are hardness, corrosion-resistance and brittleness. Ceramics are commonly manufactured by combination of mixtures of clay, earthen elements, powders, and water. These are then shaped into preferred structural forms. Once the ceramic has been shaped, it is fired in a high temperature oven known as a kiln. Often, ceramics are covered in decorative, waterproof, paint-like substances known as glazes. This adds to the economic aspect of ceramics.

The past few decades have witnessed increased emphasis on the development of infrastructure in India. This has stimulated the participation of both domestic and international companies in infrastructure. Infrastructure sector has become an important component of the Indian economy. Private sector has played a pivotal role in various infrastructural aspects such as roads, airports, power, cement, communication etc. Ceramic industry is another important component of infrastructure. Ceramic products play a significant role in the modern home designing. The growth of ceramic industry has a considerable influence on the growth of Indian Economy. Ceramic industry of India is a thriving sector. The growth potential of domestic and foreign market is suggestive of the fact that the ceramic industry might play a very significant role in Indian economy. In future it may become a significant source of foreign exchange for the country.

Finance is a significant, broad term which explains the activities associated with banking, debt, credit, capital market, funds, investments etc. A well-organized management of finance is very important for the success of any company or enterprise. This is applicable for ceramic industry as well. The financial performance is very dynamic term. Financial evaluation of an enterprise generally assess the assets, shareholder equity and liability, revenue and expenses. Financial ratio analysis is a prominent tool used to assess the financial performance of any company. It determines the greater the coverage of liquid assets to short-term liabilities and it also compute ability to pay ceramic companies short-term and tong-term payments obligation from the cash generated. It is a marker of any company's share market status or position. It also used to analyze the ceramic company's earlier financial performance and to establish the future trend of financial position.

Objectives

The present study was designed for an in-depth analysis of financial performance of Ceramic Industries of Bikaner district. The study covers only the ceramic companies in Bikaner District and was structured with the following research objectives:-

- The most significant objective of the study was to critically evaluate the accounting pattern for

analysis of financial performance in ceramic industries in Bikaner region.

- To investigate the growth and development of ceramic industries with emphasis on various parameters such as cost, production, revenue, sales, gross profit, net profit etc. and also the factors accountable for lower or higher profitability.
- To figure out, compare and interpret different profitability ratios in order to find out lapses and other aspects of performance analysis.
- To study various problems concerning the ceramic industries in Bikaner and suggest measures to overcome them in order to increase profit margin.

Review of Literature

The interpretation of financial performance of any enterprise has changed dimensions from time to time, however, the significance of financial performance is still evident in present times i.e. measurement and analysis of financial performance is of prime importance (Beaver, 1966; Altman, 1968; Sharma and Gupta, 2005). Some work has been done on the financial performance of ceramic tiles industry which is an important component of infrastructure and ceramic industry, but a detailed analysis of financial performance of the ceramic industry is still lacking.

In a study by Morarji and Devi, 2015, financial performance of 10 major tile companies was assessed. According to them India ranks 3rd in tile manufacturing around the globe. Despite the slowdown in the economy the tile industry showed substantial growth. They stated that with proper planning and quality management the exports can be significantly increased. This study was based on secondary data and concluded that financial performance is a significant parameter for assessing the operational and financial efficiency of an enterprise.

Sivabagyam, 2016 studied the financial performance of various ceramic companies using ratio analysis and various statistical tools. This study clearly suggests that financial analysis helps to assess not only the financial position but also the profitability of a concern. This can be done either by the management of an enterprise or by people outside the company for example, owners, creditors, investors etc. Purpose of analysis decides the type of analysis.

Mohanasoundari and Kalaivani, 2017, assessed the financial performance of various ceramic tile companies in terms of profitability, solvency, efficiency and liquidity analysis. The study showed that the financial analysis undoubtedly represented the profitability and efficiency of the selected companies. It also concluded that the incompetence of liquidity management and debt financing resulted in poor performance of the company.

Methodology

The present study analyzes the changes that have occurred during a specific time period in order to assess the financial performance in terms of cost elements, volume revenue, and capital structure and profitability ratios. The research study concentrates on the various characteristics of growth and development of the ceramic industries located in Bikaner District.

The primary data was collected from various ceramic industries. 3 year annual reports and account books were assessed for the study. Required permission from management were taken. Discussion with management and employees were timely done. Secondary data like financial statistics and operational data with other information was collected from various journals, periodicals, newspapers and internet websites. The relevant data was collected, tabulated and analyzed. The study was confined to Bikaner district only. Comparative analysis of major companies was performed in terms of quality, brand equity, price and profitability by by calculating comparative & common size analysis, averages, percentages and ratios for comparative study. The techniques of profitability analysis such as cost-volume analysis and ratio analysis were also applied.

Result and Discussion

Current Ratio

Current Ratio may be defined as the relationship between current assets and current liabilities. This ratio is also known as working capital ratio, is a measure of general liquidity and it

is most widely used to make the analysis of a short-term financial position of a concern. The standard norm is 2:1.

$$\text{Current Ratio} : \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets includes cash in hand, cash at bank, marketable securities, inventories, sundry debtors, etc. current liabilities includes outstanding expenses, sundry creditors, short-term advances, income-tax payable, dividends payable, interest accrued but not due on loans and provisions.

Table – 1 : Current Ratio

Year	BCP	ICF	NTF	MTF	ACECO	JP & MI	KGTF	RTF	PI	CTD
2010-11	1.63	1.15	1.33	1.53	3.15	4.88	1.84	1.58	2.94	**0.92**
2011-12	1.84	1.29	1.46	1.72	3.12	2.64	2.09	1.60	3.85	**1.43**
2012-13	1.56	1.32	1.36	1.19	3.93	2.51	1.83	1.51	3.91	**1.85**
2013-14	1.27	1.28	1.25	1.41	3.10	2.23	1.59	1.48	3.46	**1.95**
2014-15	0.71	1.73	1.30	1.21	2.61	0.69	1.52	1.54	3.98	**2.43**
2015-16	0.88	1.93	1.26	1.26	2.76	0.69	1.06	1.54	4.26	**2.67**
2016-17	1.00	1.94	1.20	1.51	2.73	0.72	3.87	1.40	4.36	**5.51**
2017-18	0.97	1.71	1.15	1.38	2.68	1.03	1.00	1.28	5.24	**7.46**
2018-19	1.19	1.71	1.18	1.32	1.94	1.39	0.79	1.29	4.14	**9.90**
2019-20	1.11	1.65	1.25	1.37	1.90	1.50	0.69	1.46	2.95	**10.42**
Mean	**1.22**	**1.57**	**1.27**	**1.39**	**2.79**	**1.83**	**1.63**	**1.47**	**3.91**	4.45
SD	**0.36**	**0.29**	**0.09**	**0.16**	**0.59**	**1.31**	**0.92**	**0.11**	**0.69**	3.61
CV (%)	**29.66**	**18.16**	**7.30**	**11.73**	**21.26**	**71.46**	**56.64**	**7.53**	**17.51**	81.11
AGR(%)	**-5.59**	**4.95**	**-1.83**	**-1.14**	**-6.03**	**-12.90**	**-9.43**	**-1.83**	**1.62**	31.83
't' value	**-2.002**	**3.351**	**-3.510**	**-0.890**	**-4.435**	**-2.298**	**-2.033**	**-3.139**	**0.848**	14.381
'p' value	0.080 NS	0.010*	0.008*	0.399 NS	0.002*	0.051 NS	0.077 NS	0.014**	0.421 NS	0.000*

Source: Annual Reports

Note: * - Significant at 1% level, **- Significant at 5% level, NS- Not Significant

Table – 2 Current Ratio (Two-way ANOVA)

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square variance	F Ratio	Table Value	'p' value
Between Years	7.09	9	0.788	0.400	2.013	**0.931 NS**
Between Companies	112.38	8	14.048	7.127	2.070	**0.000***
Residual	141.91	72	1.971			
Total	**261.38**	**89**				

Source: Data computed;

Note:*- Significant at 1% level; NS – Not Significant

From the ANOVA test, the null hypothesis of current ratio is rejected. It can be concluded that there is a substantial disparity in current ratio values between the various ceramic companies. The yearly analysis shows the acceptance of the null hypothesis. No significant difference in current ratio between considered years was observed.

Proprietary Ratio

A variant to the debt-equity ratio is the proprietary ratio which is also known as equity ratio or shareholders' to total equities ratio or net worth to total assets ratio. This ratio establishes the relationship between shareholders' funds to total assets of the firm. The ratio can be calculated as under

Proprietary ratio or Equity Ratio =

$$\frac{\text{Shareholder's Funds}}{\text{Total Assets}}$$

As equity ratio represents the relationship of owner's funds to total assets, higher the ratio or the share of the shareholders in the total capital of the company better is the long-term solvency position of the company. This ratio indicates the extent to which the assets of the company can be lost without affecting the interest of creditors of the company. The standard norm is 0.75:1.

Table – 3 : Proprietary Ratio

Year	PI	IC	NTF	MTF	ACECO	JP & MI	KGTF	RTF	BCP	CTD
2010-11	0.26	0.50	0.21	0.47	0.52	0.33	0.71	0.35	0.66	**0.52**
2011-12	0.27	0.45	0.21	0.46	0.80	0.41	0.99	0.27	0.57	**0.54**
2012-13	0.30	0.52	0.24	0.38	0.61	0.48	0.76	0.34	0.63	**0.57**
2013-14	0.33	0.62	0.26	0.46	0.54	0.49	0.69	0.36	0.69	**0.56**
2014-15	0.31	0.55	0.25	0.60	0.54	0.51	0.45	0.37	0.71	**0.64**
2015-16	0.36	0.54	0.28	0.62	0.48	0.53	0.34	0.29	0.71	**0.66**
2016-17	0.46	0.52	0.29	0.50	0.47	0.58	0.22	0.30	0.84	**0.67**
2017-18	0.63	0.57	0.40	0.48	0.48	0.60	0.08	0.30	0.86	**0.70**
2018-19	0.79	0.66	0.40	0.59	0.54	0.65	-0.04	0.33	0.90	**0.71**
2019-20	0.80	0.69	0.56	0.64	0.55	0.70	-0.09	0.36	0.90	**0.75**
Mean	**0.45**	**0.56**	**031**	**0.52**	**0.55**	**0.53**	**0.41**	**0.33**	**0.75**	0.63
SD	**0.21**	**0.08**	**0.11**	**0.09**	**0.10**	**0.11**	**0.37**	**0.03**	**0.13**	0.08
CV (%)	**46.92**	**13.53**	**35.88**	**16.56**	**17.37**	**20.68**	**90.18**	**10.54**	**15.88**	12.51
AGR(%)	**14.5**	**3.51**	**10.4**	**3.51**	**-2.5**	**7.15**	**-29**	**0.23**	**4.95**	4.23
't' value	**8.271**	**3.547**	**7.664**	**2.330**	**-1.591**	**10.289**	**-6.290**	**0.100**	**7.426**	14.216
'p' value	0.0000*	0.0008*	0.0000*	0.048**	0.150 NS	0.0000*	0.0000*	0.923 NS	0.0000*	0.0000*

Source: Annual Reports

Note: * - Significant at 1% level, ** - Significant at 5% level; NS- Not Significant

Table – 4 Proprietary Ratio (Two-way ANOVA)

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square variance	F Ratio	Table Value	'p' value
Between Years	0.049	9	0.005	0.217	2.013	**0.991** NS
Between Companis	1.592	8	0.199	7.972	2.070	**0.000***
Residual	1.797	72	0.025			
Total	**3.438**	**89**				

Source: Data computed;

Note: *- Significant at 1% level; NS – Not Significant

Proprietary ratio is indicative of the amount of shareholder's fund is used in financing the assets of the company. The analysis states that BCP has the highest average of Proprietary ratio (0.75) which means the long term solvency of the company is better. The results of ANOVA to know the significant difference of the mean values of the proprietary ratio among the ceramic companies with reference to years and between companies have proved that there is a significant difference with respect to both between years and between companies. The long term creditors of a firm are primarily interested in knowing the firm's ability to pay regularly interest on long term borrowings, repayment of the principal amount at the maturity and the security of the loan.

Gross Profit Ratio

Generally excess of net sales over cost of goods sold is termed as gross profit margin. It reflects the efficiency with which management

produces each unit of product. This ratio indicates the average spread between cost of goods sold and sales. This ratio is of vital importance for gauging business results. It reflects pricing policies of a business.

It also helps in ascertaining whether the average percentage of mark up on the goods is maintained. A low gross profit ratio will suggest a decline in business which may be due to insufficient sales. The Finance manager must be able to detect the causes of falling gross profit ratio and initiate action to improve the situation. A high gross profit margin is a sign of good and efficient management.

From the analysis of Gross Profit ratio it is reveal that the company BCP has the highest mean value of Gross Profit ratio (75.31%) followed by NNTF (54.61%). The ANOVA analysis for gross profit ratio (company wise analysis) analysis infers that the calculated of ratio value exceeds the table value. Therefore the mean value of the gross profit ratio will vary significantly among the selected ceramic companies. From the year wise analysis, the framed null hypothesis holds good. Hence there is no significant variation in the mean value of gross profit ratio during the study period.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit Ratio}}{\text{Net Sales}} \times 100$$

Table – 5 : Gross Profit Ratio

Year	BCP	ICF	NTF	MTF	ACECO	JP&MI	KGTF	RTF	PI	CTD
2010-11	31.69	34.10	35.81	40.40	49.93	38.93	39.46	34.85	54.61	**23.74**
2011-12	40.90	34.10	30.30	40.39	54.50	42.43	42.70	25.71	55.55	**26.38**
2012-13	36.56	34.74	21.65	41.13	37.17	43.04	43.51	31.27	58.32	**44.15**
2013-14	34.95	34.04	21.44	34.00	37.13	39.16	52.55	30.58	80.63	**46.62**
2014-15	31.86	35.16	20.08	37.21	34.59	37.86	85.29	28.30	85.52	**54.68**
2015-16	27.48	34.48	19.75	36.81	32.28	37.37	68.15	27.15	77.22	**45.64**
2016-17	.75	80	.89	64	98	34	60	16	.72	**08**
2017-18	21.85	28.34	15.56	36.19	36.48	36.53	52.04	30.57	81.72	**37.02**
2018-19	19.81	27.34	12.23	40.78	31.79	40.79	45.70	24.34	74.60	**24.35**
2019-20	24.63	28.57	14.47	39.39	29.89	42.69	45.10	21.11	90.22	**25.64**
Mean	**29.45**	**32.57**	**20.92**	**38.09**	**37.67**	**39.51**	**54.61**	**28.20**	**75.31**	36.23
SD	**6.85**	**3.13**	**7.21**	**2.65**	**8.11**	**2.57**	**15.23**	**3.91**	**14.47**	11.11
CV (%)	**23.27**	**9.61**	**34.46**	**6.97**	**21.52**	**6.50**	**27.90**	**13.85**	**19.21**	30.67
AGR(%)	**-6.46**	**-2.50**	**-9.64**	**-0.46**	**-5.16**	**-0.23**	**2.09**	**-3.17**	**5.44**	-1.14
't' value	**-4.8100**	**-3.2217**	**-8.3066**	**-0.5566**	**-4.2293**	**-0.4408**	**0.676**	**-2.6631**	**3.5400**	-0.3314
'p' value	0.0001*	0.0012**	0.0000*	0.5787 NS	0.0003*	0.6694 NS	0.5118 NS	0.0030**	0.0008*	0.7061 NS

Source: Annual Reports

Note: * - Significant at 1% level, ** - Significant at 5% level; NS- Not Significant

Table – 6 Gross Profit Ratio (Two-way ANOVA)

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square variance	F Ratio	Table Value	'p' value
Between Years	751.3	9	83.48	1.047	2.013	**0.412** NS
Between Companis	20411.8	8	2551.47	32.000	2.070	**0.000***
Residual	5740.8	72	79.73			
Total	**26903.8**	**89**				

Source: Data computed;

Note: *- Significant at 1% level; NS – Not Significant

Operating Profit Ratio

It is the ratio of profit made from operating sources to the sales, usually shown as a percentage.

It shows the operational efficiency of the firm and is a measure of the management's efficiency in running the outline operation of the firm.

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Total Income}} \times 100$$

Table – 5 : Operating Profit Ratio

Year	PI	IC	NTF	MTF	ACECO	JP & MI	KGTF	RTF	BCP	CTD
2010-11	18.96	19.94	17.39	27.12	49.52	33.21	17.12	34.50	50.17	**23.11**
2011-12	31.90	20.13	13.53	27.70	54.24	36.03	22.70	25.28	52.38	**25.74**
2012-13	28.94	18.87	8.06	29.54	36.45	39.18	23.45	30.35	55.97	**43.74**
2013-14	25.70	14.75	8.21	21.83	36.71	35.37	26.58	29.64	78.20	**46.25**
2014-15	31.86	35.16	20.08	37.21	32.94	37.86	85.29	28.30	85.52	**38.55**
2015-16	27.48	34.48	19.75	36.81	30.57	37.37	68.15	27.15	77.22	**28.10**
2016-17	24.75	34.80	17.89	34.64	31.68	36.34	71.60	28.16	94.72	**12.36**
2017-18	21.85	28.34	15.56	36.19	35.70	36.53	52.04	30.57	81.72	**18.71**
2018-19	19.81	27.34	12.23	40.78	30.91	40.79	45.70	24.34	74.60	**8.80**
2019-20	24.63	28.57	14.47	39.39	29.07	42.69	45.10	21.11	90.22	**13.71**
Mean	**25.59**	**26.24**	**14.372**	**33.12**	**36.78**	**37.54**	**45.77**	**27.94**	**74.07**	25.91
SD	**4.56**	**7.42**	**4.30**	**6.20**	**8.44**	**2.75**	**23.55**	**3.74**	**15.89**	13.26
CV (%)	**17.81**	**28.27**	**29.22**	**18.72**	**22.96**	**7.33**	**51.44**	**13.40**	**21.46**	51.17
AGR(%)	**-1.60**	**6.13**	**2.09**	**5.20**	**-5.59**	**1.62**	**13.24**	**-2.95**	**6.41**	-11.90
't' value	**-0.784**	**2.143**	**0.520**	**3.434**	**-4.114**	**2.937**	**2.556**	**-2.388**	**3.832**	-2.606
'p' value	0.456 NS	0.064 NS	0.617 NS	0.009*	0.003 *	0.019 **	0.034 **	0.044 **	0.005*	0.031 **

Source: Annual Reports

Note: * - Significant at 1% level, ** - Significant at 5% level; NS- Not Significant

Table – 6 Operating Profit Ratio (Two-way ANOVA)

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square variance	F Ratio	Table Value	'p' value
Between Years	1787.5	9	198.6	1.607	2.013	**0.130** NS
Between Companis	22709.4	8	2838.7	22.964	2.070	**0.000** *
Residual	8900.1	72	123.6			
Total	**33397.0**	**89**				

Source: Data computed;

Note: *- Significant at 1% level; NS – Not Significant

In case of Operating profit ratio, it is found that the performance of nearly 50% of the companies under the study is satisfactory. BCP has recorded the highest satisfactory performance of (74.07%) mean value. The remaining 50% of the companies have experienced operating efficiency and hence the ratio was low. From the study of BCP, KGTF are the two companies which have recorded a tremendous positive growth rate. The ANOVA test applies to test the hypothesis framed has reveal that there is no significant difference of the mean values of operating profit ratio with respective to years. As the calculated values is less than the table value, and hence the hypothesis is accepted. While analyzing between the companies the hypothesis is rejected and concluded that there is significant difference of the mean values of operating ratio with respect to between companies.

Conclusion

The study has analyzed the liquidity, profitability, financial performance and working capital efficient relationship of select ceramic companies in India. Some of the important ratios are used to measure the financial analysis of the selected

ceramic companies under the study. To conclude the study, it may be said that the adoption of the above measures will undoubtedly help the selected units to improve their overall performance. Short term and long term liquidity positions to be maintained properly which will ultimately enhance the liquidity and profitability of the selected ceramic companies.

The industry will be able to generate funds from internal sources, thus breaking the various circles of financial stringencies. It is known that the maximum utilization of fixed assets as well as current assets will result in better financial performance. Hence, all the select ceramic companies may follow the similar strategy to improve themselves. The technological development needs to be updated in all the companies. Thus, the dream of our planners to accelerate the economic growth of the country should increase the ceramic production at reasonable cost effectively. It is further concluded that if the ceramic industry manages its working capital effectively by maintaining appropriate ratios, efficiency and profitability may be enhanced and also liquidity may be increased.

It is suggested from the outcomes of the present research investigation that in order to fill the gap between present position and future requirements, comparative studies need to be initiated on companies functioning at Bikaner district, state, national and international level. Marketing practices of the ceramic companies should be examined, studied and interpreted for better performance.

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