



A Comparative Study of Profitability Analysis of Selected Brss Industries

Hiralal Desrani

Visiting Faculty Vivekanand College of Computer Science & Management,
Gondal Road, RAJKOT-360004

ABSTRACT

Gujarat has been the home of metal workers from as early as stone age. Sites of Indus Valley Civilization spread all over the state and echo, the presence of indigenous technique of metallurgy. It is well known that the Harappa man, whose remnants have been found in abundance in Gujarat, had excelled in forging, hammering and casting of copper and bronze. Aryans to had in all probability, known the use of a metal known as ayes, which later on come to mean iron but had in that period perhaps denoted bronze or copper.

The craftsmen of Gujarat have excelled even in the making of utensils. By visiting any home in Gujarat one can find a variety of gleaming copper, brass and iron vessels, each with a shape and form suited to the specific need. Metal lamps, incense burners, boxes for storing betel leaf and nut, nutcrackers, large dowry containers, and votive figurines are other examples of metal work available in Gujarat. The metal artisans of Gujarat are known as kansaras, whose name is derived from Sanskrit word Kansu which means bronze. Before the introduction of brass, the use of bronze utensils was very common. Varied kinds of nutcrackers and religious and other figurines make for ideal souvenirs and gifts.

Kutch and Rajkot are the famous for metal engravings and ornaments that are considered so typical of Gujarat. Anjar, Sinhor, Surendranagar, Dhrangadhra, and vadhawan are good places to buy brass and iron utensils, cutlery, knives and scissors. One can also see arrows being crafted here, and pick up knives and daggers with beautiful sheaths and hilts.

KEYWORDS: Brass Industry; Profitability Analysis

Introduction

Brass is a metal composed primarily of copper and zinc. Copper is the main component, and brass is usually classified as a copper alloy. The colour of brass varies from dark reddish brown to a light silvery yellow depending on the amount of zinc present; the more zinc, the lighter the colour. The zinc content can vary between 10% to about 45 %. Brass is specified because of the unique combination of properties, Stronger and harder than copper, it is easy to form into various shapes, a good conductor of heat, and generally resistant to corrosion from salt water. Because of these properties, Brass is usually the first-choice material for many of the components for equipment made in the general, electrical and precision engineering industries. Brass is also used to make pipes and tubes, weather stripping and other architectural trim pieces, screws, radiators, musical instruments and cartridge casting for firearms.

Research Methodology

The study is mainly based on secondary data. The relevant information in this regard is collected from various sources like annual reports of Research units, speeches of chairman & websites. The reference books have been referred from libraries. Thus, various sources have used to collect the relevant data. The data has been collected from the annual report of selected sample unit for this research are **Vasant Brass Works (Rajkot); Saurashtra Industries(Rajkot); Gold Star Brass Industries (Rajkot); Patel Brass Works (Rajkot); Silver line Brass Industries (Rajkot) for the research year 2007-08 to 2011-12 to find out the better profitability of Brass industry.**

Hypothesis of Study

- Gross Profit to sales is uniform of the research unit for the research period
- Net Profit to sales is uniform for the research unit of the research period
- Operating Profit to sales is uniform for the research unit of the research period

Technique of the Analysis

For the purpose of profitability Analysis of the Selected Brass Industries; Ratios are selected and calculated through various Statistical Techniques and Tools like, Mean and ANOVA Test, For that $SS = \text{Sum of Square}$ $D.F = \text{Degree of Freedom}$, $MSS = \text{Mean Sum of Square}$ $F_{cal} = \text{Calculated value of F}$;

$F_{crit} = \text{Critical Value of F}$; Ratio at 5% Significant Level This Tools can be analyzed the profitability trend of Selected Unit of Brass industries.

Profitability Analysis

Profitability analysis are, as matter of fact, best indicators of overall efficiency of the business concern because they compare return of value over & above the values put into a business with sale or service carried on by the enterprise with the help of assets employed. Thus profitability ratios are of two types. Profitability ratios as related to sales & profitability as related to investment. The Gross profit ratio, Net profit ratio, Ratio of return on investment, Operating ratio, etc. gives a good idea of business.

(1) GROSS PROFIT RATIO:

Meaning:

This ratio measures the efficiency of operation of the company. This ratio depicts correct trend of performance where there is an erratic fluctuation in the tax provision from year to year. It is ratio expressing relationship between gross profit and net sales.

Formula:

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

Table :1 Gross Profit to Sales Ratio in Percentage

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	AVERAGE
Vasant brass works	19.11	18.94	15.91	8.84	13.08	15.17
Saurashtra industry	17.43	15.31	11.32	11.23	11.33	13.32
Gold star brass industry	19.41	18.91	14.24	9.09	12.89	14.91
Patel brass works	15.72	13.54	10.96	8.73	11.42	12.01
Silverline brass industry	18.94	19.84	14.06	8.69	9.80	14.26

Table :2 ANOVA for Gross Profit to sales Ratio

SOURCES OF VARIABILITY	S.S.	D.F.	MSS	Fc	Ft
BSS	34.24	4	8.56	1.08	2.87
WSS	158.71	20	7.94		
TSS	192.95	24			

Above table indicates the gross profit ratio of sample unit for five years. The average of Vasant brass works, Saurashtra industry, Gold star brass industry, Patel brass works, and silver line brass industry. The average of the same ratio of all units undertaken for the study period is 15.17, 13.32, 14.91, 12.01, 14.26. Further overall average 69.67. From the analysis of all sample units have different average in all years, but not seen any sample. In the study period the lowest ratio in 2010-11, 8.69 in silver line brass industry & highest in 2008-09, 19.84 in silver line brass industry.

Here, $F_{cal} < F_{tab}$ (1.08 < 2.87) at 5% level of significance and on 4, 20 d.f. Ho may be acceptable. i.e. varieties do not differ significantly.

2 NET PROFIT RATIO :

Meaning:

The NPR is the overall measure of a firm's ability to turn each rupee of income in to profit. It indicates the efficiency with which a business managed. A bank with a high net profit ratio is in an advantageous. Where net profit ratio is low the firm will find it difficult to survive in this adverse situation. It shows the relationship between total net profit to sales.

Formula:

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

Table: 3 Net Profits to Sales Ratio in Percentage

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	Average
Vasant brass works	9.23	9.67	5.71	7.53	8.94	8.21
Saurashtra industry	8.19	7.43	4.33	6.54	8.66	7.03
Gold star brass industry	6.86	5.10	7.26	8.99	9.65	7.57
Patel brass works	9.41	9.44	6.09	7.04	8.59	8.11
Silverline brass industry	8.63	8.54	5.60	6.99	8.50	7.65

Table :4 ANOVA for Net Profit to Sales Ratio

SOURCES OF VARIABILITY	S.S.	D.F.	M.S.S.	Fc	Ft
BSS	4.25	4	8.56	0.41	2.87
WSS	51.42	20	7.94		
TSS	55.67	24			

Above table indicates the Net profit ratio of sample unit for five years. The average of Vasant brass works, Saurashtra industry, Gold star brass industry, Patel brass works, and silver line brass industry. The average of the same ratio of all units undertaken for the study period is 8.21, 7.03, 7.5 7, 8.11, 7.65. Further overall average 38.57. From the analysis of all sample units have different average in all years, but not seen any sample. In the study period the lowest ratio in 2008-09, 5.10 in gold star brass industry & highest in 2008-09, 9.44 in Patel brass industry.

Here, $F_{cal} < F_{tab}$ (0.14 < 2.87) at 5% level of significance and on 4, 20 d.f. Ho may be acceptable. i.e. varieties do not differ significantly.

3 OPERATING RATIO:

Meaning:

The expenses ratio is closely related to the profit margin because in income what such proportion is used for meetings expenses such as administrative, operative, marketing etc. It should be compared over a period of time with the other unit. A low ratio is favorable, while a high is unfavorable. It is a ratio showing relationship between cost of goods sold plus operating express and net sales.

Formula:

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold} + \text{operating Expense}}{\text{Sales}} * 100$$

Table: 5 Operating Expenses to Sales Ratio in Percentage

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	Average
Vasant brass works	86.97	88.45	42.89	57.51	75.42	70.24
Saurashtra industry	85.46	84.91	40.89	57.02	50.47	63.75

Gold star brass industry	70.51	65.85	32.95	54.56	73.86	59.54
Patel brass works	95.20	81.52	48.90	52.17	60.79	67.71
Silverline brass industry	61.62	64.19	31.59	59.33	68.27	57

Table: 6 ANOVA for Operating Expenses to Sales

SOURCE	S.S.	D.F.	M.S.S.	Fc	Ft
B.S.S.	30.25	4	7.56	0.79	2.87
W.S.S.	190.42	20	9.52		
T.S.S.	220.67	24			

Above table indicates the Operating profit to sales ratio of sample unit for five years. The average of Vasant brass works, Saurashtra industry, Gold star brass industry, Patel brass works, and silver line brass industry. The average of the same ratio of all units undertaken for the study period is, 70.24, 63.75, 59.54, 67.71, 57. Further overall average 318.24. From the analysis of all sample units have different average in all years, but not seen any sample. In the study period the lowest ratio in 2009-10, 31.59 in silver line brass industry & highest in 2007-08, 95.20 in Patel brass industry. Here, $F_{cal} < F_{tab}$ (0.79 < 2.87) at 5% level of significance and on 4, 20 d.f. Ho may be acceptable. i.e. varieties do not differ significantly.

Finding

From the gross profit ratio, it is found that the ratio of Vasant brass is higher as compared to other companies and the lower ratio is of Silver line brass industry. It is because of Vasant brass is giant or old company as compared to silver line. Other companies' ratio is between the Vasant brass & Silver line brass industry.

In the net profit ratio, in Saurashtra brass the lower ratio of is 6.86%. & higher ratio of Vasant brass is 8.22%. But overall higher ratio is of Vasant brass & then comes Saurashtra. This ratio is depended on the managerial efficiency of the company.

The operating ratio is overall lower in all the companies. But it is lowest in the Silver line in which is 3.2% & highest in Vasant brass in which is 2.6%. The lower net profit ratio shows low profitability.

Limitation

As Brass industry is one of the lead industry for manufacturing concern there are various players who plays in Brass Industry and as such it is difficult to get the resource data for all the concern throughout the country and hence only five research unit is taken for the purpose of this study as well as period of study is also limiting factor for this research study.

Conclusion

India is developing country. It has adopted free economy so it is an opportunity for every domestic company to upgrade its technology and other process in order to stand in modern market, which has cut throat competition. As they are more concentrate on export they should also cover the domestic market

REFERENCES

1. Chotai Ushaben : "Entrepreneur - industrialists of Jamnagar brass industry" - M.Phil. Dissertation, Saurashtra University, 1988. | 2. Sodha, R. B.: A study of Jamnagar Brass Parts Industries, M. Phil. Dissertation, Saurashtra University, Rajkot. 1990 | 3. Dr. Banyani, "The role and performance of Small Scale Industries in India" I.C.F.A.I. Journal of Managerial Economics | Website: - http://www.india-crafts.com/state_specials/gujrat_handicrafts/index1.html | - http://gujaratrails.com/arts_crafts.html | - <http://www.indiainfoweb.com/gujarat/art-crafts/jewellery-metal-works.html> | - www.vasantbrass.com | - www.saurashtraindustries.com | - www.goldstarbrassindustries.com | - www.patelbrass.com | - www.silverlinebrassindustry.com