



ISSN: 0976-3376

Available Online at <http://www.journalajst.com>

ASIAN JOURNAL OF
SCIENCE AND TECHNOLOGY

Asian Journal of Science and Technology
Vol. 5, Issue 11, pp.695-699, November, 2014

RESEARCH ARTICLE

A COMPARATIVE ANALYSIS OF LIQUIDITY AND PROFITABILITY OF INDIAN CAR INDUSTRY, TIRUCHY

***Buvaneswari, R. and Kanimozhi, P.**

Assistant Professor, Department of Commerce, Srimad Andavan Arts and Science College (Autonomous), No.7 Nelson Road, T.V. Kovil, Trichy – 05

M.Phil Research Scholar, Department of Commerce, Srimad Andavan Arts and Science College (Autonomous), No.7 Nelson Road, T.V. Kovil, Trichy – 05

ARTICLE INFO

Article History:

Received 28th August, 2014
Received in revised form
23rd September, 2014
Accepted 11th October, 2014
Published online 19th November, 2014

Key words:

Car Industry financial position,
Comparative ratio

ABSTRACT

The Automobile actually began about 4000 years ago when the first wheel was used for transportation in India. Several tailings recorded designs for wind driven vehicles. The first was Guidoda Vigevano in 1335. Vaturio designed a similar car which was also never built. Later Leonardo da vinci designed clockwork driven tricycle with tiller steering and a differential mechanism between the back wheels. For many years after the introduction of automobiles, there kinds of power sources were in common use; Steam engines, gasoline or petrol engines, and electrical motors. In 1900, over 2300 automobiles were registered in New York, Boston, Massachusetts, and Chicago of these 1170 were Steam Cars, 800 were electric Cars, and only 400 were gasoline Cars. The range of the automobile however, was very brief and at the most, it could only run at a stretch for fifteen minutes. In addition, these automobile were not fit for the roads as the steam engines made them very heavy and large, and required ample starting time. It had a top speed of a little more than 3.2 km/hand had to stop every 20 minutes to build up a fresh head of steam. A road thus made out of iron rails became the norm for the next hundred and twenty five years. The Automobiles got bigger and heavier and more powerful and as such they were eventually capable of pulling a train of many cars filled with freight and passengers.

Copyright © 2014 Buvaneswari, R. and Kanimozhi, P. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Automobile industry plays a very vital role in the Indian Economy. Its connections with various other sectors of the economy make it an important component of the economy. Infrastructural development of a nation comprises of urban development, rural development and industrial development, but the hidden requirement of infrastructure is the connectivity between various regions, which is fulfilled by the automobile industry. The auto industry plays a significant role in shaping a country's economy and development. The manufactures of heavy commercial vehicle had given rise to a new era in the Indian history. Slowly many firms started setting up various small manufacturing units in India. As a result the first few passenger vehicles such as the Fiat, Premiere Padmini, Lemhrata scooters, etc came into production in India. The Indian Automobile industry includes two - wheelers, trucks, cars, buses and three – wheelers which play a crucial role in growth of the Indian economy. India has emerged as Asia's fourth largest exporter of automobiles, behind Japan, South Korea and Thailand. The Country is expected to top the world in car volumes with approximately 611 million vehicles on the

nation's roads by 2050. The Economic progress of this industry is indicated by the amount of goods and services produced which give the capacity for transportation and boost the sale of vehicles. There is a huge increase in automobile production with a catalyst effect by indirectly increasing the demand for a number of war materials like steel, rubber, plastics, glass, paint, electronics and services. The revenue generated due to these sectors also contributes to the enhancement of the national economy. The Indian automobile industry is going through a technological change where each firm is engaged in changing its processes and technologies to maintain the competitive advantage and provide customers with the optimized products and services. Starting from the two wheelers, trucks, and tractors to the multi utility vehicles, commercial vehicles and the luxury vehicles, the Indian automobile industry has achieved splendid achievement in the recent years. The era from 1940 to late 1950's experienced the emerging period of the industry; where in a number of new companies came into existence for the production of the automobiles. Amongst these very few companies survived the impositions of the government. A major part of the private sector in the potential industry was swiped out due to license raj imposed by the government. The government had a socialistic approach towards development, thus the auto industry did not face much competition in its initial stages.

***Corresponding author: Buvaneswari, R.**

Department of Commerce, Srimad Andavan Arts and Science College (Autonomous), No.7 Nelson Road, T.V. Kovil, Trichy – 05

Due to lack of competition the industry faced losses in form of low purchases due to the same automobile models. The growth of the industry during this period was very slow due to the low economic status of the country. A few changes in the growth rate were seen during the years 1970 to 1980 when a few new industries entered the market with new models. This profited the market and enhanced the growth of the industry.

The companies such as Telco (currently owned by Tata Motors), Ashok Leyland and Bajaj Premier entered the market with the launch of the new range of commercial vehicles. The market for the first time had faced such a growth. This growth also affected the national economy. This marked the start of a new segment for profit production in the Indian economy which would grow on to become a major sector of the economy. During the years 1980 to 1990 the automobile market was further opened. The Japanese were the first global player to occupy the Indian industry. They entered into joint venture with the Indian companies and started the production work. It marked the origin of the leading manufacturer of automobile in India, The Maruti Suzuki. The alliance bought a few new twists in the market. With new models entering the market, the growth rate further increased. Automotive industry became a major contributor to the GDP of the country. During this era, the prime minister Dr. P. V. Narasinha Rao and the then finance minister Dr. Manmohan Singh foresighted the growth opportunity of the automotive sector.

Development of Car Industry

Like many other nations India's highly developed transportation system has played a very important role in the development of the country's economy over the past to this day. One can say that the automobile industry in the country has occupied a solid space in the platform on Indian economy. Empowered by its present growth, today the automobile industry in the country can produce a diverse range of vehicles under three broad categories namely cars, two – wheelers and heavy vehicles. During the early stages of its development, Indian automobile industry heavily depended on foreign technologies. However, over the years, the manufacturers in India have started using their own technology evolved in the native soil. The booming market place in the country has attracted a number of automobile manufacturers including some of the reputed global leaders to set their foot in the soil looking forward to enhance their profile and prospects to new heights. At present, about 85 percent of India's automobile industry is made up by small cars, with the figure ranking the nation on top of any other country on the globe. Over the next two or three years, the country is expecting the arrival of more than a dozen new brands making compact car models.

Scope of the Study

- The information relevant to the decision under consideration from total information contained in the financial statements.
- The information in a way to highlight significant.
- Interpretation and drawing of interfaces and conclusion.

Objectives of the Study

- To examine the liquidity position and analysis of liquidity.
- To analysis of the profitability.
- To analysis liquidity Vis-a Vis profitability.

- To make suggestions of profitability and liquidity for financial soundness.

MATERIALS AND METHODS

Data Collection: The main source of data used for the study was secondary, drawn from the annual profit and loss account and balance sheet. Figures are found in annual reports of the selected units. The other data sources and opinions expressed in Commercial Journals, Magazines, News Papers, Accounting literature, various Journals of car. Automobile industry annual review etc. has been also used in this study.

Period of the Study: The liquidity and profitability study is made for a period of 5 years from 2008 -2013.

Tools Used: Collected data have been processed and tabulated by using ms excel software SPSS (statistical packages for social science). Ratio analysis like liquidity ratio, profitability ratio, leverage ratio and efficiency ratio, z-score analysis are used in the study.

Statement of the Problem: Industry is short supply of raw material and shortage of electricity supply and heavy electric charge. It is also making effect on cost of production and financial position. Other problem is Tax and duty structure and differential taxation system. The sales tax structure is not standardized across the country also a limited road network with poor road surface did not help matters much. These problems also effect directly or indirectly on cost of production. The objectives of final analyst are as (1) external (2) internal. An external analyst has to depend upon the published information of financial statement, which are not on lightening themselves while internal analyst know everything regarding the information provided in financial statements. Study of financial statement analysis is always made objectively. Generally, external analysts use information as per their requirements. Financier would like to know profitability. Management would be interested in the operational efficiency and profitability. Position of the management profitability vis-à-vis liquidity also balances in the portfolio. But if the management likes profitability is less. The various stockholders of business enterprise like management, investors, bankers, financial institutions, creditors, employ. Government economist, prospective investors etc, look at sound financial position of the business enterprise.

Ratio Analysis: Ratio analysis is a widely used tool of financial analysis. The term ratio is refers to the relationship expressed in mathematical terms between two individual figures or group of figures connected with each other in some logical manner and are selected from financial statements of the concern. The ratio analysis is based on the fact that a single accounting figure by itself may not communicate any meaningful information but when expressed as a relative to some other figure, it may definitely provide some significant information the relationship between two or more accounting figure/groups is called a financial ratio. It helps to express the relationship between two accounting figures in such a way that users can draw conclusions about the performance, strengths and weakness of a firm. From the above table it is clear that the current ratios of both the companies has been fluctuating and are below the normal ratio of 2:1. But the current ratio of

Maruti Suzuki is comparatively greater than Hindustan Motors Ltd., Even though it is fluctuating; it has been increasing trend in ratios of Maruti Suzuki India Company. The normal current ratio is 2:1. The above table shows current ratio is less than 2% in all the years except in the year for both the companies. This shows that both companies are not enjoying credit worthiness

Table 1. Current Ratio

Year	Current assets (Rs in lakhs)		Current liabilities (Rs in lakhs)		Ratio	
	HML	MSL	HML	MSL	HML	MSL
	2008-09	97.59	2060.20	160.57	3250.90	0.61
2009-10	89.48	2116.90	255.00	3160.00	0.35	0.66
2010-11	144.91	4748.00	257.54	3861.60	0.56	1.22
2011-12	117.26	5170.20	187.32	5338.00	0.63	0.96
2012-13	109.14	4039.40	211.06	5845.80	0.52	0.69

Source: Secondary data

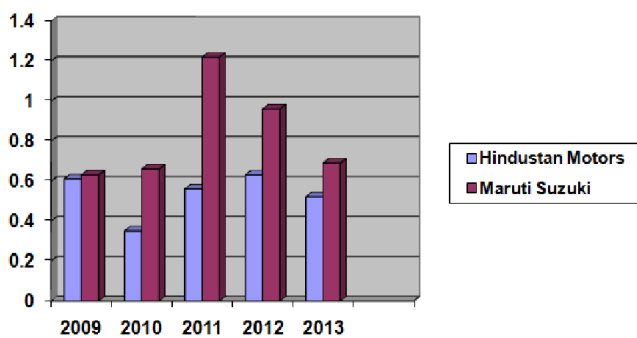


Chart 1. Current Ratio

Table 2. Quick Ratio

Year	Quick assets (Rs in lakhs)		Current liabilities (Rs in lakhs)		Ratio	
	HML	MSL	HML	MSL	HML	MSL
	2008-09	76.79	1141.30	160.57	3250.90	0.48
2009-10	74.02	1307.00	255.00	3160.00	0.29	0.41
2010-11	130.13	3923.50	257.54	3861.60	0.51	1.01
2011-12	121.05	4232.60	187.32	5338.00	0.65	0.79
2012-13	25.58	2615.70	211.06	5845.80	0.12	0.44

Source: secondary data

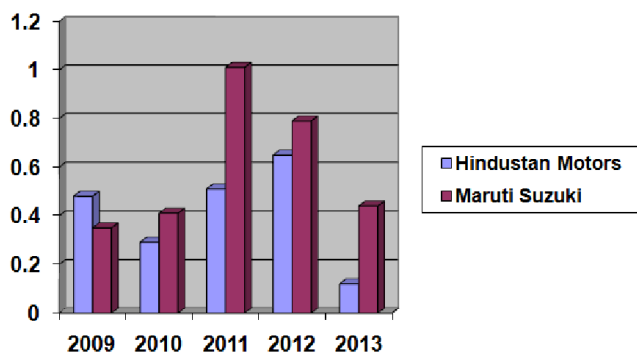


Chart 2. Quick Ratio

The above table shows the liquid ratio of the Hindustan Motors and Maruti Suzuki India companies. The quick ratio of both the companies has been fluctuating but in the year 2010-11 the ratio of Maruti Suzuki is being 1:01 which is almost equal to the normal ratio of 1:1. All the years the ratios are below the normal ratio. Hence the firms need to

control its stock position because there is a linear relationship between current ratio and liquid ratio.

Z score Analysis: A company failure or bankruptcy prediction method developed by Professor Edward Altman of New York University. A company's Z score is a positive function of five factors: (net working capital) / (total assets) (retained earnings) / (total assets) (EBIT) / (total assets) (equity / total liabilities) (sales) / (total assets). Although the weights are not equal the higher each ratio the higher the Z-score and the lower the probability of bankruptcy. It is also called Zeta.

Measuring the 'Fiscal-Fitness' of a company: In the early 60's Edward Altman, using Multiple Discriminant Analysis combined a set of 5 financial ratios to come up with the Altman Z-Score. This score uses statistical techniques to predict a company's probability of failure using the following 7 variables of the company's financial statements.

Table 3. The number 1 and 3 are from the Income Statement and the rest from the Balance Sheet

1. Working capital	970620.00
2. Total Assets	288340416.17
3. Retained earnings	10201111.00
4. EBIT	1159634654.08
5. Equity	9230491.00
6. Total liabilities	1554278473.00
7. Net sales	1601210500.00
Altman Z Score Value	18.0401

Description about Z score value

The firm's Z score is in the high range. Hence this company is in a stable condition and the chance of bankruptcy is nil with the current values.

Table 4. The 5 financial ratios in the Altman Z-Score and their respective weight factor is as follows

	RATIO	WEIGHTAGE
A	Working capital / total assets	3.3T ₁
B	Retained earnings / total assets	0.999T ₂
C	Earnings before interest and taxes / total assets	0.6T ₃
D	Equity / total liabilities	1.2T ₄
E	Sales / total assets	1.4T ₅

These ratios are multiplied by the weight age as above and the results are added together.

$$Z - \text{Score} = AT_1 3.3 + BT_2 0.99 + CT_3 0.6 + DT_4 1.2 + ET_5 1.4$$

The interpretation of Z score

The Z-scores are helpful in predicting corporate defaults as well as an easy to calculate measure of control for financial distress status of companies in academic studies Z-Score above 2.6 (2.9) indicates a company to be healthy. Besides, such a company is also not likely to entire bankruptcy. However, z-score ranging from 1.1 – 2.6 (1.23 – 2.9) are taken to lie in the grey area. The above table shows the z-score of the company. The z-scores are less than 1.23 which indicates distress.

'Z' SCORE

The Altman Z-Score is an analytical representation created by Edward Altman in the 1960s which involves a combination of five distinctive financial ratios used for determining the

odds of bankruptcy amongst companies. Most commonly, a lower score reflects higher odds of bankruptcy.

$$Z\text{-score} = 3.3T_1 + 0.99T_2 + 0.6T_3 + 1.2T_4 + 1.4T_5$$

Where,

Z=Discriminate function score of a firm

T_1 = Working Capital / Total Assets

T_2 = Retained Earnings / Total Assets

T_3 = Earnings before Interest and Taxes / Total Assets

T_4 = Equity / Total Liabilities

T_5 = Sales / Total Assets

T_1 (Working Capital / Total Assets) = this ratio expresses the liquidity position of the company towards the total capitalization. Working capital is defined as the difference between current assets and current liabilities. Liquidity and size characteristics are explicitly considered.

T_2 (Retained earnings / Total Sales) = It indicates the amount reinvested, the earnings or losses, which reflects the extent of the company's leverage. In other words, the extent assets, which have paid by company profits. Those firms with high Retained Earnings to Total Assets have financed their assets through retention of profits and have not utilized as much debt. It also highlights either the use of internally generated funds for growth (low risk capital) Vs OPM (other people's money) high risk capital. This is a measure of cumulative profitability overtime and leverage as well.

T_3 (Earnings before Interest and Taxes / Total Assets) = It is the measure of the company's operating performance audit also indicates the earning power of the company. In addition, this is a measure of the productivity of the firm's assets, independent of any tax on advantage factors. Since a firm's ultimate existence is based on the earning power of its assets, this ratio appears to be particularly appropriate for studies dealing with credit risk.

T_4 (Equity / Total Liabilities) = It is the measure of the long-term solvency of a company. It is reciprocal of the familiar debt-equity ratio. Equity is measured by the combined market value of all shares. While debt includes both, current and long-term liabilities exceed the assets and the concern becomes insolvent.

T_5 (Sales / Total Assets) = This is a standard turnover measure. Unfortunately, it varies greatly from one industry to another. In addition to this, it will reveal the sales generating capacity of the company's assets and measure of management's capacity to deal with competitive conditions.

Findings

- The current ratios of both the companies have been fluctuating and are below the normal ratio of 2:1. But the current ratio of Maruti Suzuki is comparatively greater than Hindustan Motors Ltd., Even though it is fluctuating; it has been increasing trend in ratios of Maruti Suzuki India Company.
- The normal current ratio is 2:1. The above table shows current ratio is less than 2% in all the years except in the

year for both the companies. This shows that both companies are not enjoying credit worthiness

- The liquid ratio of the Hindustan Motors and Maruti Suzuki India companies. The quick ratio of both the companies has been fluctuating but in the year 2010-11 the ratio of Maruti Suzuki is being 1:01 which is almost equal to the normal ratio of 1:1. All the years the ratios are below the normal ratio. Hence the firms need to control its stock position because there is a linear relationship between current ratio and liquid ratio.
- Maruti Suzuki India has higher position of stock and cost of goods sold than Hindustan Motors Ltd., In the years of study it is found above that the cost of goods sold are almost 20 times of the average stock of the Maruti Suzuki whereas the Hindustan Motors has 9 times of the average stock. Both the ratios show that more stock is remaining in both the company.
- The sales of Hindustan Motors Ltd., is 4 or 5 times more than the fixed assets whereas the sales in the Maruti Suzuki is 5 times more than the fixed assets. It can be observed that in the Hindustan Motor Company the fixed assets value has been increasing while the sales decreasing whereas the fixed assets of the Maruti Suzuki increasing while the sales also increasing.
- The fixed charge coverage ratio shows investors and creditors a firm's ability to make its fixed payments. Like the times interest ratio, this ratio is stated in numbers rather than percentages.
- The financial charges coverage ratio of Hindustan Motors and Maruti Suzuki India for the study periods from 2009 to 2013. Both the companies ratios are being very low hence it shows that the firms' less ability which means that the companies are not healthy.
- The Hindustan Motors do not allot dividend for the study periods from 2009 to 2013 where as the Maruti Suzuki India Company gave very meagre dividend for the share holders.
- The operating margin ratio of Hindustan Motors Ltd., shows negative ratio it means the operating margin is decreased and the company is earning less per dollars of sales. Also the ratios of Maruti Suzuki India are very low. This shows the profitability of the sales is very low.
- Net profit margin of Maruti Suzuki is good compared to Hindustan Motors Ltd., which shows negative ratio. It shows that Hindustan Motors not efficiently controlling its costs to earn more profit whereas the Maruti Suzuki controls its costs. This means that either there is any defect in pricing the product or excess non-value added expenditure which reduces the net profit of the company.
- From the above table it is clear that the EPS of the Hindustan Motors are negative trends and the Maruti Suzuki's are positive but very low margin. Hence it shows that both the companies EPS are not moderate. This is the sign of very lower earnings and lower financial position of the firms; hence it is not reliable for the investors to invest in these companies.

Suggestion

- The companies' profit over the years has been decreasing when compared to previous years. Hence they must increase the profit in future. They must take steps to increase the profit level.

- The Operating Profit ratio can be improved by increasing the gross profit and the factors decreasing the gross profit ratio should be thoroughly checked timely whether they are operating factors or any misleading factors.
- A Non-operating expense of the companies is high. So the management should take necessary steps to reduce the non-operating expenses. The management should take steps to reduce the borrowed capital.
- Net fixed asset of the companies have increased and even though they are not utilizing the enhanced technology to increase sales. So the management should take initiative steps for the proper utilization of the resources.
- The liquidity position of both the companies is not satisfactory. And this must be improved further for the purpose of proper utilization of the liquid assets of the company.
- Equity ratio has not satisfactory for the Hindustan Motors but the equity ratio of the Maruti Suzuki India is satisfactory. Hence the company has enough scope for the more long-term borrowings from the outsiders as its current ratio is also good and has a sufficient amount of current assets.
- The sales of the organization can be further increased by improving the quality through optimum utilization of company's resources (i.e. assets, raw materials, credit system, etc.) and that in turn will increase the overall profits of the organization.
- The Management must find out the reasons for the decrease in sales and must take appropriate measures.

Conclusion

In the comparative analysis of the two companies for a period of five years from 2009 to 2013 it was found that the financial performance of the Hindustan Motors Ltd., is much less appreciable than Maruti Suzuki India. The study reveals that the financial performance of Maruti Suzuki India is comparatively better than the Hindustan Motors Ltd and it has

been able to maintain optimal cost positioning. Despite price drops in various products, the company has been able to maintain and grow its market share to make strong margins in market, contributing to the strong financial position of the company. The company was able to meet its entire requirements for capital expenditures and higher level of working capital commitment with higher volume of operations and from its operating cash flows.

REFERENCES

Books

1. R. P. Mishra :- Research Methodology, A Hand Book Published by Concept, Publishing Company, New Delhi 1988.
2. C. M. A. Data on Car Industry 2003 & 2006
3. Commerce, April 2004 and January 2005.
4. Capital Market April 2006.
5. S. J. Parmar:- Financial Efficiency, Modern Methods, Tools & Techniques.
6. N. K. Sharma:- Management Accountancy Published by RBSA Publisher, Jaipur 1993.
7. Indian Car Review April 2007.
8. Bernard S. Phillips, Social Research Strategy and Tactics, Macmulan Publishing Co
9. Claire Selitiz and Others, Research Methodology in Social Sciences 1962
10. Fred N. Kerlinger, Foundation of Behavioural Research, New York, Holt, Reinharat and Winston 1973.
11. Management Today (February 2000).
12. Paul E. Green and Donald S. Tull, Research for Marketing Decision, New Jersey, Prentice Hall, 1970.
13. William J. Goode and Paul K. Hart, Methods in Social Research, New York. McGraw Hill Book Company, 1952.
14. MICHAEL V. P:- "Research Methodology in Management". Himalaya Publishing House, Bombay 1985
15. Kothari C. R. :- "Research Methodology –" – "Methods and Techniques". Wishwa Prakashan, New Delhi 1997.
