A COMPARATIVE STUDY OF CORPORATE SICKNESS OF HINDUSTAN MOTORS AND EICHER MOTOR'S"

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INTRODUCTION

Hindustan Motors is an Indian automotive manufacturer based in Kolkata, West Bengal, India. It is a part of the Birla Technical Services industrial group. The company was the largest car manufacturer in India before the rise of Maruti Udyog. Hindustan Motors was the producer of the Ambassador motorcar, which was once a mainstream car in India, based on 1956 Morris Oxford series III and was in production from 1957 until 2014. Production of the Ambassador ceased on 24 May 2014.

Eicher Motors Limited is an Indian manufacturer of motorcycles and commercial vehicles. Eicher is the parent company of Royal Enfield, a manufacturer of middleweight motorcycles. In addition to motorcycles, Eicher has a joint venture with Sweden's AB Volvo - Volvo Eicher Commercial Vehicles Limited (VECV).

Sickness in Industries has become very sensitive problem in India. It is creating adverse problem to industrial health and the economy as well. Rapid industrialization gives positive as well as negative impact on the economy. Sickness covers all types of units in small, medium and large sectors in all over the world. It is a matter of crores of rupees concern directly and indirectly to the nations. It is also a phenomenon shows adverse effect on employment, availability of goods and services and the price of those things soaring up. The investors lose their earning and creditors lose their future returns and the business become weak. The Government, Financial Institutions and Management should focus on prevention of sickness, to save the business world. However, before discussing the remedial measures of industrial sickness we should know the concept of Sickness.

The Reserve Bank of India has defined a sick unit as one "which has incurred a cash loss for one year and is likely to continue incurring losses for the current year as well as in the following year and the unit has an imbalance in its financial structure.

The Altman Z score was initially published in the year 1968 by Professor Edward Altman, which tries to measure a company's financial health. Altman developed a multivariate model to predict corporate failure using multiple discriminant analysis. Altman's sample consisted

of 33 failed and 333 non failed firms elected by paired sample design. In his model, failure firms were those firms which were legally bankrupt. Twenty two accounting and non accounting variables were considered in various combinations as predication of failure. Out of 22 tested ratios, only 5 ratios could give the best performance to measure the corporate sickness.

The Altman Z-score is the output of a credit-strength test that gauges a publicly traded manufacturing company's likelihood of bankruptcy. The Altman Z-score is based on five financial ratios that can calculate from data found on a company's annual report. It uses profitability, leverage, liquidity, solvency and activity to predict whether a company has high probability of being insolvent

REVIEW OF LITERATURE

Navulla. D (2016) suggested that corporate company's failure is major problem of developed countries as well as developing counties in the world. Failures are increasing day by day because of growing competition and the changing economic, political, social, cultural, legal and global environment. The companies' number is increasing in India every year. With the increasing number of companies, sickness in industries also flowed by it. In this paper we tried to mention the thing to combat sickness problem in India. It includes the concept of types of sickness, reasons, adverse effect of sickness along with preventives measure which is provided by the Government in India.

Singh,N.(2011) reviews in his article entitled "Industrial Sickness and Causes & Remedies", sickness is an organic process, the process of sickness may take several years, but the seeds of sickness can be visualized at a very early stage in the life cycle of an industrial unit.

Kosmidis , Venetaki , Stavropoulos and Terzidis (2011) analysed a model for the prediction of financial distress using 27 financially distressed and 27 financially viable companies with 41 financial ratios. T-tests and univariate discriminant analysis were employed to identify the most significant factors for the financial viability of companies. The empirical results of the study indicated that the Logit model was more accurate than the MDA model in terms of correct classification.

Gerantonis, Vergos and Christopoulos (2009) analyzed whether Altman Z-Score model can predict correctly company failures for a period of up to three years prior to sickness. The

researcher found that this model was useful in identifying financially troubled companies that might fail up to 2 years before bankruptcy as it matches both accounting data and market value.

Goswami,D. suggested that Industrial sickness is one of the primary causes that slow down overall economic development of a state in particular and a country in general. Generally, industrial sickness is identified using some traditional techniques which rely upon a range of manual monitoring and compilation of financial records. It makes the process tedious, time consuming and at times are susceptible to manipulation. The model may also be used to predict a certain microscopic picture within a macroscopic scenario showing distinct parametric association with the overall economic state of an industrial belt of a state or a country. Mathematical approach with statistics framework will give help for decision makers and policy planner a better way to deal with sickness.

Maitlo,G.M (2007) analyzed that the root causes of sickness in small industries are lack of good management, short fall of working capital, inadequate feasibility reports and marketing problems.

Misra.R.N. analyzed that most of the sick units established in India are confronted with the delay in supply of raw-materials, delay by bankers in sanctioning working capital and poor selection of entrepreneurs. As the incidence of sickness has been persistently increasing, the Government felt the necessity to set-up an agency which could monitor the case of sick units.

K.Srinivas and V.Apparao said that sickness of a company is mainly based on internal causes which are controllable and external causes which are not controllable. The management has to identify it initially for taking corrective measures to control it.

AIMS AND OBJECTIVES

1. To study selected ratios to predict corporate sickness of the two firms.

2. To analyse Atlman's Z score for 5 years for the two firms.

RESEARCH AND METHODOLOGY

This chapter describes the methodology adopted in this research study on discriminators and predictors of corporate sickness. This paper is completely based on secondary data source

like Annual Reports of Hindustan Motors and Eicher Motor's, different kinds of text books and news papers and journals.

Analysis:-

STASTICAL TOOLS: Column graphs OR line graphs will be used to show the various ratios to compare with the past five years of Hindustan Motors and Eicher Motors. MS-EXCEL will use to prepare the graphs and MS-WORD will use to prepare or write the whole project report.

TIME FRAME OF THE STUDY:- 5 years financial statements of Eicher Motors and Hindustan Motors are:-

- 2011-12

- 2012-13

- 2013-14

- 2014-15

- 2015-16

Analysis:- Here the analysis will be done on basis of secondary data, which include:

✓ Annual Report of the two companies i.e Eicher Motors and Hindustan Motors

✓ Balance Sheet of Hindustan Motors and Eicher Motor's.

✓ Profit and loss A/C of Hindustan Motors and Eicher Motor's.

Five ratios used in the model relates to liquidity, solvency, profitability and leverage of the firm and produce a single score knows as Z-score, which is used to classify the firm as bankrupt or non bankrupt. Altman's model is as under:

$$Z = 1.2*X1 + 1.4*X2 + 3.3*X3 + 0.6*X4 + 0.999*X5$$

Where X1, X2, X3, X4 and X5 are accounting ratios used as variables in the model. These variables are explained as under:-

- Working capital/total assets (X1):- this ratio measures the liquidity position of the firm in relation to its total capitalisation. Working capital is taken as the difference between the current assets and current liabilities. Decrease in working capital or current assets of the firm increases the chances of financial distress for the firm.

- Retained earnings/total assets (X2):- it is used as the measure of the cumulative profitability of the firm over the number of years. Generally the old firm has large retained earnings than the new firm which indicates that the chances of default or financial distress are more for the new firms.

- Earnings before interest and taxes/total assets (X3):- this ratio indicates the earning capacity of the firm after eliminating the effect of interest and taxes. This ratio is very useful because the existence of any firm depends upon the earning capacity of the firm.

- Market value of equity/total liabilities (X4):- this ratio is also relevant for studying the probability of default or financial distress of the firm. This ratio indicates that as the total liabilities exceed the total assets, the firm becomes insolvent. In other words this ratio capture the market reactions due to decrease in the value assets of the firm.

- Sales/total assets (X5):- this ratio relates the firm's sales to the total assets. It measures the sales generating ability of the firm. If firm have higher sales then the probability of default or financial distress decreases.

- Z represents the overall combined score. This score is used to determine the status of any firm. If Z-score is found to be more than 2.99 then the firm is considered as non bankrupt and firms with X-score less than 1.81 are classified as bankrupt. Any firm having Z-score more than 1.81 and less than 2.99 considered in grey zone where bankruptcy cannot be predicted easily. In order to test the sensitivity of the Altman's model to change in time period we re-estimated the model by using data from 2011-15.

ANALYSIS

In this chapter, the results of analysis of data will be discussed. Firstly, the financial ratios of sick and non-sick firms are discussed. In the second section, financial ratios are plotted. The third part is comparison between the sick and non sick firms on the basis of five financial ratios as per Altman's model and the last part is the Z-score comparison between the two firms.

Table5.1:- Financials of Eicher Motors (Rs in Cr)

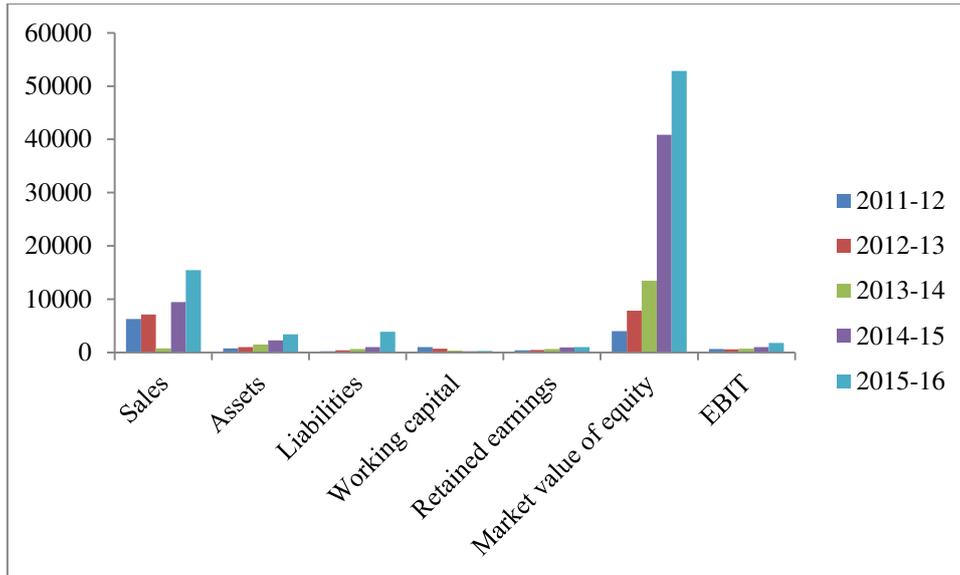| Year	Sales	Assets	Liabilities	Working capital	Retained earnings	Market value of equity	EBIT
2011-12	6272.77	782.38	242.34	1026.49	381.62	4016.5	660.2
2012-13	7131.68	1024.24	395.19	691.92	455.76	7848.11	599.7
2013-14	758.58	1489.18	661.84	330.45	618.54	13454.14	670.56
2014-15	9459.18	2228.89	995.23	195.05	967.11	40860.46	992.62
2015-16	15428.83	3418.00	3857.61	266.85	998.35	52847.11	1771.25

Figure 5.1:- Financials of Eicher Motors (Rs in Cr)

Table5.2:- Ratios of Eicher Motors

Year	Working Capital to Total Asset (X1)	Retained Earnings to Total Asset (X2)	EBIT to Total Asset (X3)	Market Value of equity to Total Liabilities (X4)	SALES to Total Asset (X5)
2011-12	1.31201	0.487768	0.843835	16.57382	8.017549
2012-13	0.675545	0.444974	0.585507	19.85908	6.962899
2013-14	0.221901	0.415356	0.450288	20.32839	0.509394
2014-15	0.08751	0.433898	0.445343	41.0563	4.243897
2015-16	0.031473	0.117747	0.518212	13.69944	1.819706

1. Working capital to total asset:- Over the years it is observed that working capital to total asset ratio is consistently decreasing. From the above table it is seen that the

Eicher Motors has been decreasing the investment in the working capital but it is decreasing in total asset which is healthy sign for an organisation.

2. Retained earnings to total assets:- This ratio decreased in year 2015-16 but it was almost been stable in the last four years. The company has been consistently increasing the retained earnings which is the healthy sign for the organisation and at the same time the reason behind the decrease in the ratio is basically is the huge increase in the total asset in the year 2015-16

3. EBIT to total assets:- This ratio shows decreased in the year 2015-16 as compared with the year 2011-12 but it was almost been stable in the year 2013-14 and 2014-15. It can said that for company the return on total assets is quite good, i.e. 51%. Usually, when a firm achieves 20% or above, it is considered healthy. It can be said that the company is using the assets of the business to create net income.

4. Market Value of equity to total assets:- It has shown a variable result over the years. Market value to total liabilities was highest in the year 2014-15 reporting a ratio of 41.05 but in the year 2015-16 it is reported the lowest ratio of 13.69. It is because of the huge increase in the total liabilities in that year.

5. Sales to total assets:- Asset turnover ratio has shown a fluctuating result. In the year 2011-12 the ratio was highest because the sales was 8 times of the total asset but in the year 2015-16 it detoriated to 1.81 times. It means the huge increase in asset over the last four years didn't result into increase in sale.

Table5.3:- Financials of Hindutan Motors (Rs in lac)

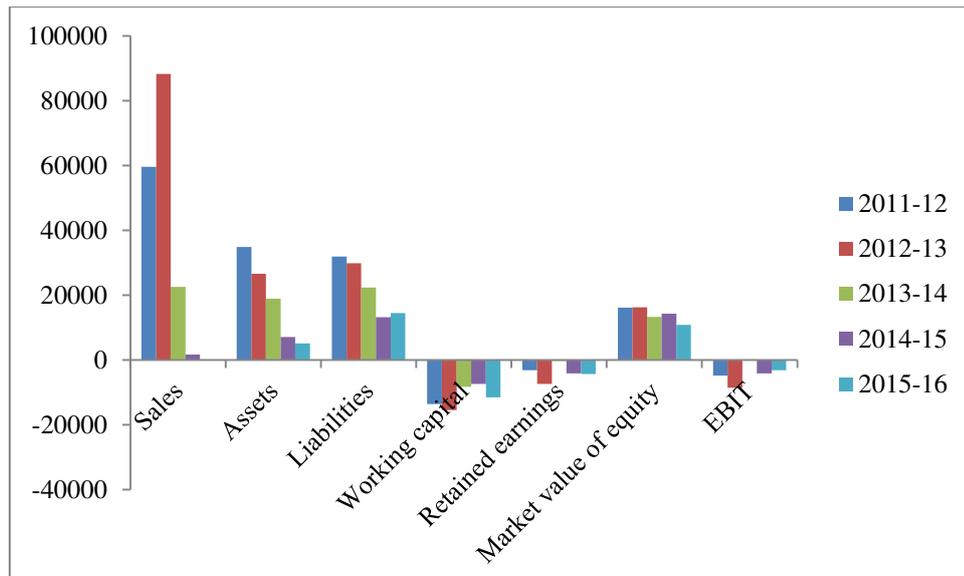| Year	Sales	Assets	Liabilities	Working capital	Retained earnings	Market value of equity	EBIT
2011-12	59633.62	34894.16	31919.63	-13585.79	-3141.84	16,162.46	-4782.9
2012-13	88211.03	26594.63	29885.98	-15473.76	-7347.81	16,293.31	-8588.82
2013-14	22581.37	18898.73	22392.13	-8249.1	-307.41	13,303.58	-70.84
2014-15	1694.61	7047.22	13186.82	-7366.26	-4190.23	14,293.16	-4190.23
2015-16	25.31	5158.62	14504.03	-11507.6	-4352.86	10,850.28	-3204.47

Figure 5.2:- Financials of Hindutan Motors (Rs in lac)

Table 5.4:- Ratios of Hindustan Motors

Year	Working Capital to Total Asset (X1)	Retained Earnings to Total Asset (X2)	EBIT to Total Asset (X3)	Market Value of equity to Total Liabilities (X4)	SALES to Total Asset (X5)
2011-12	-0.38934	-0.09004	-0.13707	0.506349	1.708986
2012-13	-0.58184	-0.27629	-0.32295	0.545182	3.316874
2013-14	-0.43649	-0.01627	-0.00375	0.594119	1.194862
2014-15	-1.04527	-0.59459	-0.59459	1.083898	0.240465
2015-16	-2.23075	-0.8438	-0.62119	0.748087	0.004906

1. Working capital to total asset:- Over the years it is observed that working capital to total asset ratio is consistently decreasing and is negative, indicating that current

liabilities are greater than current assets. It seems that the company does not have the necessary liquid assets to pay its current liabilities as they fall due.

2. Retained earnings to total assets:- It is observed from the above table that the graph is showing the decreasing trend. The retained earnings to total asset ratio is negative which indicates the situation of bankruptcy.

3. EBIT to total assets:- The above table is showing a decreasing trend. Thus, the EBIT to total asset ratio is decreasing showing that the company's profitability is decreasing over the last five years.

4. Market Value of equity to total liabilties:- Over the years it is observed that the market value to total liabilities ratio is showing an increasing trend. But in the year 2015-16 it has decreased in larger proportion. It is because of huge decrease in the total liabilities in the last five years.

5. Sales to total assets:- Over the years it is observed that sales to total asset ratio is consistently decreasing. A low asset turnover ratio is reflecting the bad management of assets by the company. It means the huge decrease in asset over the last five years indicating that the company isn't using its assets efficiently and most likely have management or production problems.

Comparison between Hindustan Motors and Eicher Motors:-

Table 5.5:- Working Capital to Total Asset Ratio

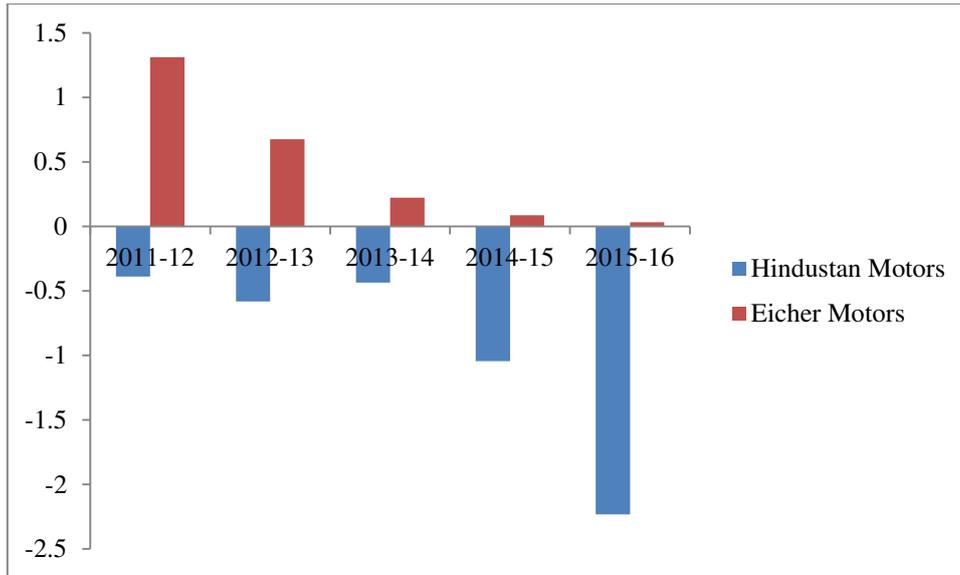| Year	Hindustan Motors	Eicher Motors
2011-12	-0.38934	1.31201
2012-13	-0.58184	0.675545
2013-14	-0.43649	0.221901
2014-15	-1.04527	0.08751
2015-16	-2.23075	0.031473

Figure 5.3:- Working Capital to Total Asset Ratio

Table 5.6:- Retained earnings to total assets Ratio

Year	Hindustan Motors	Eicher Motors
2011-12	-0.09004	0.487768
2012-13	-0.27629	0.444974
2013-14	-0.01627	0.415356
2014-15	-0.59459	0.433898
2015-16	-0.8438	0.117747
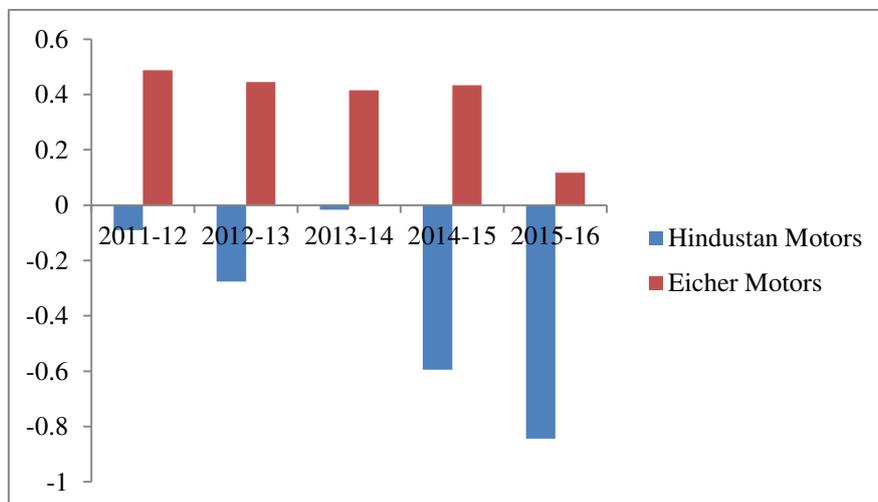
Figure 5.4:- Retained earnings to Total Asset Ratio

Table 5.7:- EBIT to total assets Ratio

Year	Hindustan Motors	Eicher Motors
2011-12	-0.13707	0.843835
2012-13	-0.32295	0.585507
2013-14	-0.00375	0.450288
2014-15	-0.59459	0.445343
2015-16	-0.62119	0.518212
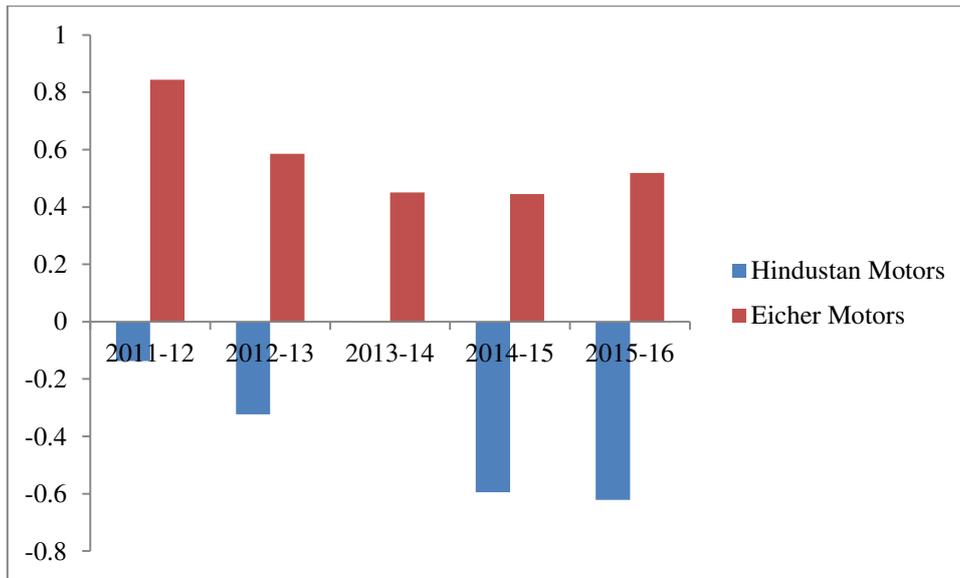
Figure 5.5:- EBIT to Total Asset Ratio

Table 5.8:- Market Value of equity to Total Liabilities Ratio

Year	Hindustan Motors	Eicher Motors
2011-12	0.506349	16.57382
2012-13	0.545182	19.85908
2013-14	0.594119	20.32839

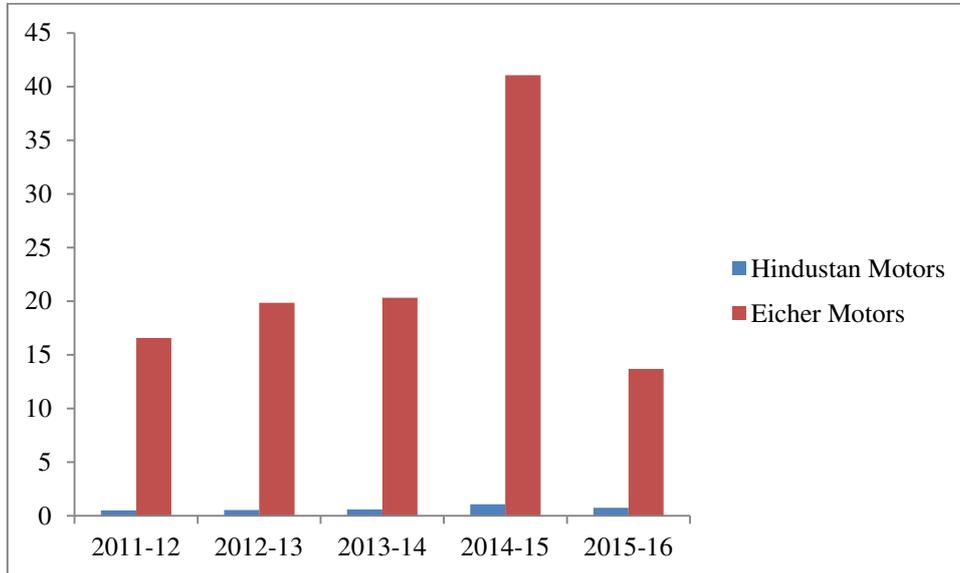|		
2014-15	1.083898	41.0563
2015-16	0.748087	13.69944

Figure 5.6:- Market Value of equity to Total Liabilities Ratio

Table 5.9:- Sales to Total Asset Ratio

Year	Hindustan Motors	Eicher Motors
2011-12	1.708986	8.017549
2012-13	3.316874	6.962899
2013-14	1.194862	0.509394
2014-15	0.240465	4.243897
2015-16	0.004906	1.819706
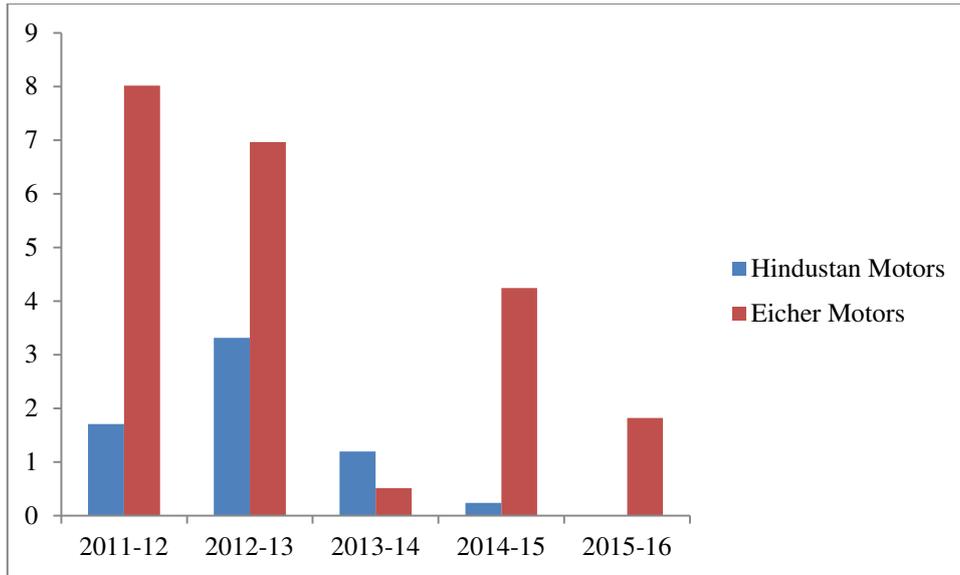
Figure 5.7:- Sales to Total Asset Ratio

Table 5.10:- Z SCORES

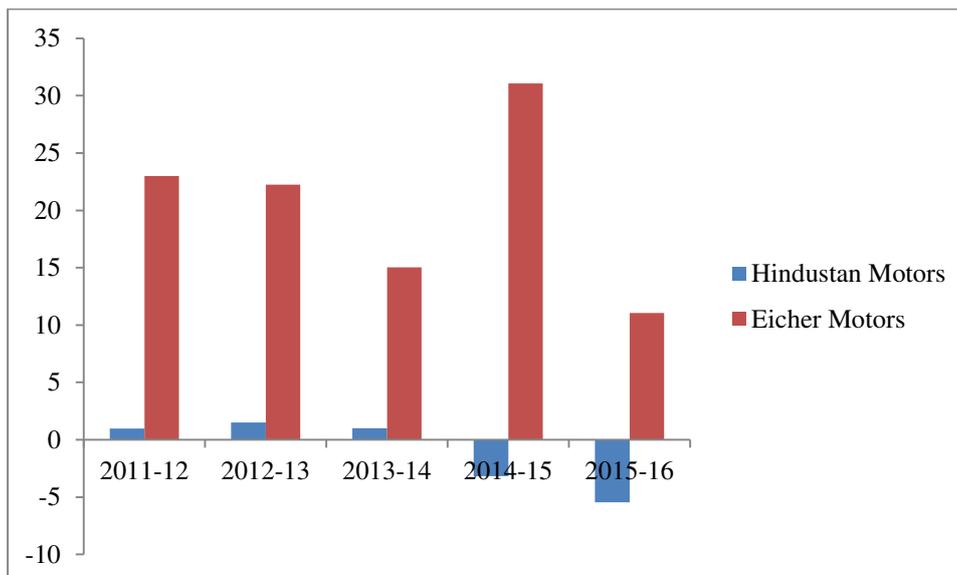| Companies	2011-12	2012-13	2013-14	2014-15	2015-16	Average
Eicher Motors	23.00379	22.24414	15.04016	31.05978	12.2901	20.7275
Hindustan Motors	0.967202	1.493227	0.992403	-3.15811	-5.45439	-5.1596

Figure 5.8:- Z SCORES

As Z score for Eicher motors is more than 2.99 it is in the safe zone. This is mainly because of Niche product of Eicher motors that are Royal Enfield. It is advisable to invest in

companies like this. The fundamentals are very strong, total asset of companies is increasing. New showrooms in overseas and in domestics is numbering high. Apart from motorcycles they do manufacture genuine spares, helmet, accessories etc. are in high demand.

Hindustan Motors is very good example for saturation stage business. Its products are obsolete in nature, it cannot stand with its competitors, and the changes in technology should be increased drastically. It is the worst performer among the stocks. The Z score is less than 2.99

CONCLUSION

Industrial sick is easy to understand but difficult to control it. Many countries are facing problem with the industrial sickness. It gives a lot of pressure to the Governments to overcome it. Recognisation of sickness symptoms gives way to solve the problem of the nations. Banks, business people, government and other financial institution must be careful to deal with the concept of industrial sickness.

Based on the calculations of Z scores for the two companies for the study, it is clearly found that Hindustan Motors has a very less score in comparison to the score of the Eicher Motors. According to Z score analysis, if the score is below 1.8, the bankruptcy is likely. So, it is very clear that "Hindustan Motors" are worst performer and "Eicher motors" is best performer.

Suggestion to Company:-

Companies which is having Z score which is less than 1.8 is it is said to be bankrupt, As per analysis, Hindustan Motors have week Z score, when compared with Eicher Motors,it is worst performer, In simple words it should work on fundamentally. As per analysis, Eicher Motors have very good score highest when compared to Hindustan Motors.

Limitations of the study:-

    i.   Altman Z score cannot be applied for Financial Institutions like Banking firm or Institutions Investing firms etc.

    ii.   For analysis only Automobile sector is taken.