



REVIEW OF RESEARCH

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“PREDICTING BANKRUPTCY OF MARUTI SUZUKI AND BAJAJ AUTO LIMITED BY APPLYING ALTMAN’S Z-SCORE MODEL”

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ABSTRACT:

The chief objective of this study is to predict the probability of bankruptcy of two automobile companies by using Z-score model and equated with each other's. Forecasting of Bankruptcy is perilous task in the initial stage of identification of possibility of insolvency. For assessing the probability of bankruptcy, the Altman Z-score is most appropriate. For the said stud The five financial data of both companies has been collected from the secondary sources i.e. annual reports of the respective companies. From the investigation, it is found that the bajaj auto limited performance is good as compared to Maruti Suzuki limited.



KEYWORDS: Z-score model and equated , bajaj auto limited performance , chief objective.

1. INTRODUCTION

The Indian automobile industry is prospering in a most notable way, the global source said that it's the 4th largest manufacturer in the world. And it is one of the imminent forth coming market in the world. The Indian automobile industry has achieve remarkable position in the world scenario. To remain withalikeleap, the companies must aware about short-liquidity threats. Over-time, abundant techniques are available such as the Multiple Discriminant Analysis, the Linear Probability Models and Artificial Neural Network

Models and has been employed for prediction of company financial strength, weakness and probability of the bankruptcy. investment on human capital.

Parameters for measuring Z-score -manufacturing firms
Table No.1

Nature of Firm	Manufacturing Firms
X1	working capital / total assets
X2	retained earnings / total assets
X3	EBIT / total assets
X4	market value of equity / book value of total liabilities
X5	Sales / total assets.
Z coefficient Value	$1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5$
Zone of Discriminations	“Safe Zone”= $Z > 2.99$ “Gray Zone”= $Z > 1.81$ or $Z < 2.9$ “Distress” Zone= $Z < 1.81$

Source: Wikipedia

2.REVIEW OF LITRETURE

Ms.S.Praveena and at all(2012), in their learning, they tried to established that the assortment effect of various financial relations with the help of z score analysis seeds companies, they found that these firms have good financial fitness.

Prihadi (2011), insolvency, Introductory suggestions from the company that typically can be predictable early that the financial statements are prudently examined in a particular way; financial ratios can be used as sign of the liquidation of the firm.

STATEMENT OF PROBLEMS

The Maruti Suzuki limited and Bajaj Auto mobile are economically sound & fit according to business sensitivity nevertheless domain is continually changing its circumstances in future, it is surely not static altogether. Consequently, an investigator has to predict, how far-flung they will accomplished to keep up the financial strength of the company in future. Hence the Altman Z score model is the standing and universally acknowledged method to find out the financial sturdy and weak point of concerns in advance.

OBJECTIVE OF THE STUDY

- To study the all-encompassing financial soundness of the Maruti Suzuki limited and Bajaj through Altman Z score model.
- To predict the prospect of insolvency of the Maruti Suzuki limited and Bajaj Auto limited by applying Altman Z score model.

RESEARCH METHODOLOGY

Types of research:

The descriptive analytical research has been undertaken for this study purpose.

Sources of data:

The Study is based purely on secondary data.

Period of the study:

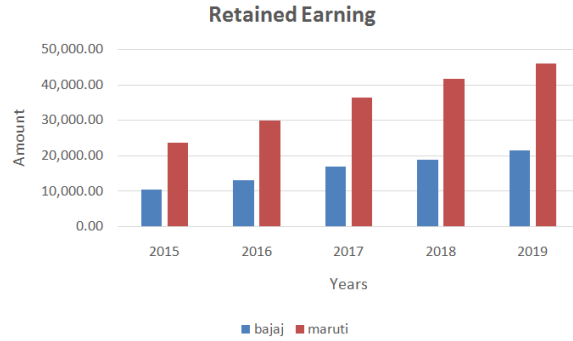
For this determination, five years digits has been occupied i.e. 2015-19 of individual firm.

Sample:

For this Investigation, purposive sampling technique has been used.

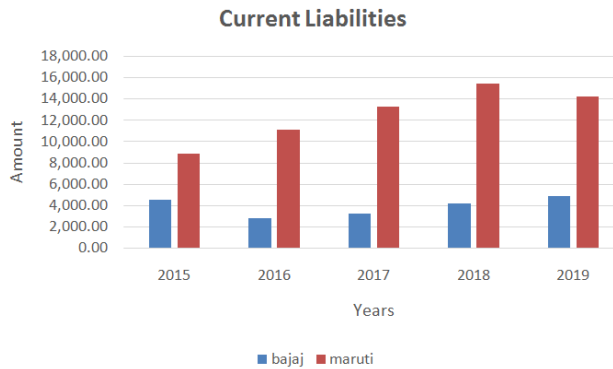
DATA ANALYSIS:

Retained Earning		
Years	bajaj	maruti
2015	10,402.78	23,553.20
2016	12,977.18	29,733.20
2017	16,744.76	36,280.10
2018	18,814.49	41,606.30
2019	21,490.53	45,990.50



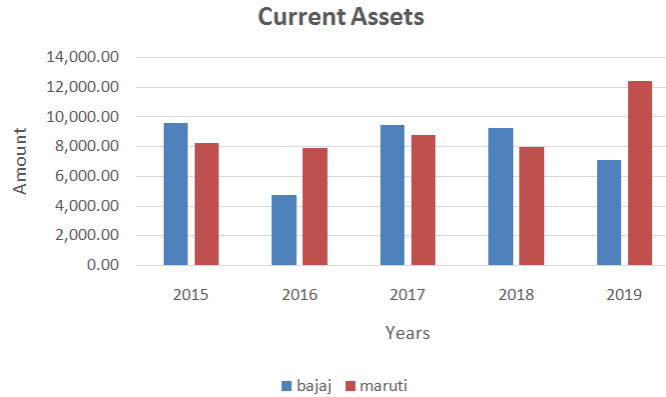
- It is clear from the above table & graph that Maruti Suzuki has decent earning trends as compared to Bajaj over the study period
- In 2019, the retained earnings of Maruti Suzuki is double as compared to Bajaj Auto mobile.

Current Liabilities		
Years	bajaj	maruti
2015	4,476.79	8,823.00
2016	2,780.99	11,039.20
2017	3,212.58	13,226.40
2018	4,111.29	15,442.10
2019	4,873.68	14,150.30



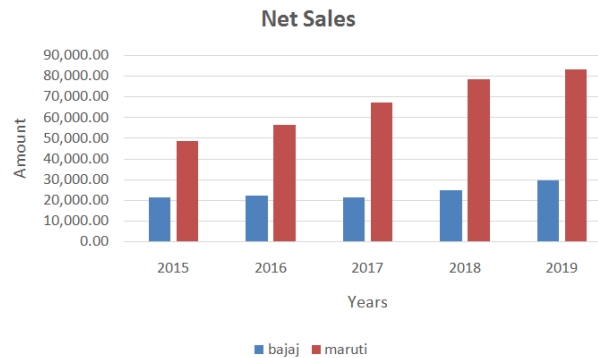
- From above table & chart it is depicted that the current liability of Maruti Suzuki is more as compared to Bajaj. It is due to size of the business.

Current Assets		
Years	bajaj	maruti
2015	9,526.27	8,197.90
2016	4,725.25	7,846.00
2017	9,391.37	8,776.20
2018	9,235.63	7,921.40
2019	7,062.66	12,361.60



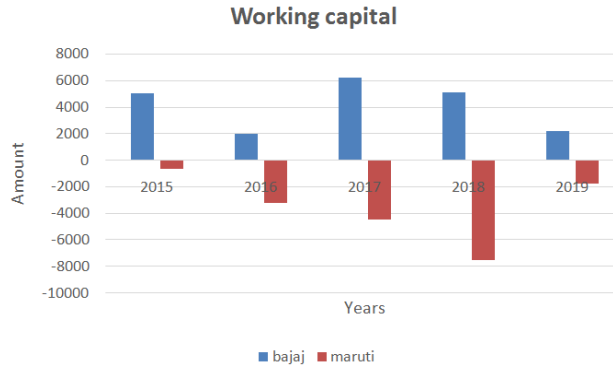
- From above table & chart it is depicted that the current assets of Maruti Suzuki is more in some years as compared to Bajaj. It is due to size of the business. Hence, we can conclude that liquidity position of the Bajaj Auto mobile limited is not up to the mark and also it is found that the liquidity position of Maruti Suzuki is far better than Bajaj Auto limited.

Profit/Loss Before Tax		
Years	bajaj	maruti
2015	4,084.79	4,868.20
2016	5,547.32	7,443.70
2017	5,335.63	9,960.30
2018	5,782.57	11,003.40
2019	6,703.16	10,465.60



- As we have seen that the current assets & current liabilities of the Maruti Suzuki is double as compared to Bajaj auto limited. It is because, the volume of the Maruti Suzuki is wider than Bajaj auto limited

Working capital		
Years	bajaj	maruti
2015	5049.48	-625.1
2016	1944.26	-3193.2
2017	6178.79	-4450.2
2018	5124.34	-7520.7
2019	2188.98	-1788.7



Interestingly, it is found that working capital position of Maruti Suzuki is not upto the mark although its sale is very high as compared to Bajaj auto limited.

Altman z-score											
		BAJAJ					Tata Motors				
Paramaters	Coeffi cient	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
X1 (working capital / total assests)	1.2	0.32 4468	0.11 793	0.29 6845	0.21 5132	0.07 9947	- 0.01 863	- 0.07 614	- 0.08 683	- 0.12 667	- 0.02 842
X2(retained earnings /total assets)	1.4	0.66 8459	0.78 714	0.80 4461	0.78 9878	0.78 4888	0.70 2012	0.70 8946	0.70 7896	0.70 0796	0.73 0799
X3 (EBIT / total assets)	3.3	0.26 2062	0.33 6413	0.25 627	0.24 2711	0.24 4652	0.13 8959	0.17 5541	0.19 2601	0.17 9513	0.16 5096
X4(market value of equity/book value of total Liability)	0.6	9.25 4687	11.2 5365	10.3 2515	12.3 654	14.3 2568	10.3 2561	12.3 256	12.3 2564	13.2 6543	10.3 256
X5(Sales / total assets.)	0.999	1.35 6092	1.34 3627	1.02 6838	1.03 6979	1.07 987	1.44 8705	1.34 5761	1.30 5534	1.31 5558	1.31 9309
z score		9.09 7559	10.4 4815	9.54 905	10.6 2012	11.6 7633	9.06 1645	10.2 2022	10.2 2205	10.6 95	9.04 7179
zone		Safe	Safe	Safe	Safe	Safe	Safe	Safe	Safe	Safe	Safe

From the above table, it is demonstrate that Altman z-score of Maruti Suzuki and Bajaj Auto limited is fullyconventional over the study period. Remarkably,Companies are in safe zone and both firms has very good score also found that the liquidity state of the concerns are broadlygood and there is a no gauge of insolvency at all.

CONCLUSION:

Predicting of Insolvency is important task, of the firms. The bankruptcy of companies can be initiated by using Altman’s Z-Score Model. From the study it is establish thatand both firms has very good score also found that the liquidity state of the concerns are broadly good and there is a no gauge of insolvency at all.

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