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A STUDY ON LIQUIDITY ASSESSMENT OF AUTO ANCILLARIES OTHERS IN AUTOMOBILE INDUSTRY

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ABSTRACT

The primary aim of this paper is to analyse the liquidity assessment of Auto Ancillaries Others sector of Indian Automobile Industry. A Sample of 40 companies has been selected for the present study. The study period covers from 2004-05 to 2013-14. The result shows that As per Discriminant analysis of Auto Ancillaries sector was good in others.

KEYWORDS: *Auto Ancillaries Others, Liquidity.*

INTRODUCTION

Liquidity refers to the ability to pay in cash the obligations that are due. If sufficient liquidity is not maintained, the enterprise is technically insolvent and at least faces the financial embarrassments of renegotiating its obligations to creditors.[9] A higher financial liquidity would generally mean a lower risk of technical insolvency showing capability of an enterprise to pay the current debts as they become due. There are several measures with the help of which the short term liquidity of an enterprise may be assessed.

Liquidity management is necessary for all businesses, small, medium or large because it means collecting cash from customers in time so that having no difficulty in paying short-term debts. Therefore, when a business does not manage its liquidity well, it will have cash shortages and will results in difficulty in paying obligations. As a result, in addition to liquidity management is vital for on-going concerns.

Statement of the Problem

The growing scenario of Indian economy has made a healthy development of transportation industries. Automobile industry is one of key elements in transportation industries and

automobile vehicles are a vital element for all industries and society. Finance is the life blood of the business. Therefore, when a business does not manage its liquidity well, it will have cash shortages and will results in difficulty in paying obligations. There is no study on liquidity assessment of Indian automobile industry. Therefore to cover the gaps in the earlier studies, the present study is undertaken to give an insight in to the liquidity assessment of Auto Ancillaries others sector in the Indian Automobile Industry.

RESEARCH METHODOLOGY

Automobile industry consists of two sectors. One is Automobiles and the other one is Auto Ancillaries. The Automobile Industry has 242 companies in the capital line data base. The present study is based on secondary data. The auto ancillaries others sector the number of available company is 144, out of these 40 companies have been selected. The data for this study has been selected based on stratified sampling. The study period has been chosen from 2004-05 to 2013-14 (ten years). Discriminant analysis has been used for the present study.

Discriminant Analysis

In this study, the following two variables as reliable indicators of liquidity behaviour have been considered for the selected Auto Ancillaries Other Companies

X_1 = the Current Ratio (CR)

X_2 = the Liquid Ratio (LR)

The object is to determine weights for X_1 and X_2 , that is the values of 'a' and 'b' in

$Z= a X_1+ b X_2$

Where, Z is the discriminant index.

First of all, the selected companies have been classified in to two groups. The companies, which have Current and Liquid Ratios of 2:1 and 1:1 or more respectively have been classified as good risks (Group A) and the remaining companies as poor risks (Group B). After classifying the selected companies into the good and poor risk classes, the values of 'a' and 'b' in the discriminant functions are estimated. The discriminant co-efficient was multiplied with the values of each company ratios in order to obtain the discriminant score of each company. With the help of the discriminant scores, the cut off values are calculated as follows.

$$\text{Cut off value} = \frac{n_1 Z_1 + n_2 Z_2}{n_1 + n_2}$$

Where n_1 and n_2 are the size of sample and Z_1 and Z_2 are the mean of the discriminant score of Group A and Group B respectively. Actual Z scores of the individual companies are compared with the discriminating Z scores. If the Z scores are found to be more than the discriminating Z scores, it can be said that such companies have good liquidity position.

The following financial ratios are used to make discriminant analysis.

1. **Current Ratio**
2. **Liquid Ratio**

1. Current Ratio

The Current Ratio is a measure of the company's short-term solvency. It explains the relationship between the Current Assets and Current Liabilities. The Current Ratio is calculated by dividing Current Assets by Current Liabilities.

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

This ratio indicates the availability of Current Assets in rupees for every one rupee of Current Liabilities. A ratio of greater than one means that concern has more Current Assets than Current Liabilities. As a conventional rule, a Current Ratio of 2: 1 or more is considered satisfactory.

2. Liquid Ratio

It is a measurement of a company's ability to convert its current assets quickly in to cash in order to meet its current liabilities. Thus it is a measure of quick or acid liquidity.

$$\text{Liquid Ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

Liquid Ratio of 1:1 is considered satisfactory as a company.

TABLE NO. 1.1 GOOD AND POOR RISK COMPANIES IN TERMS OF CURRENT RATIO AND LIQUID RATIO (AUTO ANCILLARIES - OTHERS)

Year	Good risk	Poor Risk
2004-05	17	23
2005-06	16	24
2006-07	18	22
2007-08	18	22
2008-09	20	20
2009-10	19	21
2010-11	16	24
2011-12	17	23
2012-13	17	23
2013-14	17	23

Source: Computed from the Annual Reports of the Indian Automobile Industry

Table No. 1.3

Discriminating Z scores for the selected Other Companies for the year 2004-05 to 2013-14

2004-	2005-06	2006-07	2007-08	2008-09	2009-	2010-	2011-	2012-	2013-14
0.48	1.26	-0.34	-0.91	-2.06	-1.07	2.03	0.16	0.52	-0.06
0.46	0.64	2.28	0.66	1.22	2.31	0.79	0.10	0.08	0.47
-1.37	-2.41	3.97	3.35	0.24	-0.81	-2.08	-0.17	-1.23	0.51
-0.62	1.36	1.94	0.02	-0.15	-1.25	-1.82	0.30	-0.46	0.68
1.17	0.19	0.36	-0.02	1.20	-0.88	-0.17	-2.06	-0.75	0.96
0.58	0.30	1.19	0.31	1.14	-1.24	-1.05	-0.88	-1.39	1.05
-1.20	-0.40	-0.58	-1.28	0.66	0.80	1.51	0.89	0.64	-1.06
-1.24	0.79	-0.33	0.13	1.98	-0.34	-1.04	-0.86	1.01	-0.11
-0.97	-1.08	1.09	3.20	-1.23	-1.84	0.04	0.96	-0.01	-0.15
-0.56	0.17	0.38	-1.49	3.85	-1.00	-2.31	0.71	0.27	-0.01
-0.87	-0.61	-1.51	0.91	-0.38	-0.98	1.52	2.91	0.13	-1.12
-0.27	0.78	2.49	1.15	-0.25	-0.06	-1.76	-0.96	-2.55	1.42
3.34	-1.40	-2.05	-0.87	0.93	1.66	-0.95	-0.39	-0.79	0.52
2.28	0.47	1.15	0.03	2.03	1.01	1.11	0.05	0.50	0.66
-2.16	-1.35	2.73	0.17	-0.22	1.31	-1.09	0.	0.56	-0.63
0.33	0.57	1.13	0.65	0.69	-0.88	-0.64	-1.64	-1.28	1.09
-0.46	-1.65	1.13	0.64	-1.28	1.95	-0.85	0.02	1.05	-0.56
-2.17	-0.34	2.53	0.80	-0.19	-0.46	0.14	1.13	-1.30	-0.14
-0.94	-1.45	-1.70	-2.14	2.36	2.59	1.47	0.74	0.47	-1.40

		Companies	Alicon Castlloy Ltd	Auto Ignition Ltd	Auto line Industries Ltd	Banco Products (India)	Bharat Seats Ltd.	Brakes India Ltd.	Canara workshops Ltd.	CMH tools Ltd.	Fiem Industries Ltd.	Harita seating systems	Jay ushin Ltd.	JBM Auto Ltd.	Johnson control India	KEW Industries Ltd	LG Balakrishna Bros	Lucas Indian Services	Lumax Automotive	Lumax Auto	MiPco Seamless Rings

TABLE NO. 1.2 DISCRIMINANT FUNCTION FOR THE PERIOD 2004-05 TO 2013-2014 (AUTO ANCILLARIES - OTHERS)

Year	Function	Remarks
2004-05	Z= 1.93 a – 1.26 b	a>b
2005-06	Z= 2.10 a – 1.37 b	a>b
2006-07	Z= 2.19 a – 1.48 b	a>b
2007-08	Z= 2.14 a – 1.48 b	a>b
2008-09	Z= 2.45 a – 1.65 b	a>b
2009-10	Z= 2.21 a – 1.53 b	a>b
2010-11	Z= 2.09 a – 1.36 b	a>b
2011-12	Z= 2.19 a – 1.44 b	a>b
2012-13	Z= 2.26 a – 1.46 b	a>b
2013-14	Z= 2.07 a – 1.39 b	a>b

Note: The expression a>b is to be read as "a is greater than b".

2010-11	2011-12	2012-13	2013-14
-1.10	-0.98	-0.33	1.13
0.66	1.63	1.07	-1.24
-1.32	2.17	3.78	-0.96
-1.77	-0.53	-1.92	0.38
-3.19	0.95	0.98	-0.53
-1.48	-1.28	-1.36	0.57
0.37	1.79	1.81	-1.10
-0.89	-1.56	-1.21	0.50
-1.54	-0.70	1.19	-0.04
-5.02	-3.08	-2.81	4.07
-1.50	-1.19	-0.02	0.16
0.16	0.33	0.73	-0.90
0.75	-0.46	0.58	-0.65
-0.54	0.05	1.95	-0.44
0.13	1.71	2.06	-1.11
0.00	-0.97	-3.82	1.64
-0.63	-1.75	-0.99	0.76
-0.69	-0.29	0.19	-0.17
0.72	-1.62	-0.82	0.18
1.70	1.98	2.87	-2.19
-0.16	-1.21	-1.81	1.24
-0.46	**-0.04**	**0.02**	**0.08**

Source : Computed from the Annual

Companies	2004-05	2005	2006	2007-08	2008-09	2009-10
Munial Auto Industries	1.72	0.76	1.15	-0.08	-1.53	-0.73
Perfect Circle India	-1.12	-0.93	-0.91	-0.28	0.18	0.93
Remsons Industries	2.90	-0.23	-2.48	-2.89	-0.78	-0.18
Rico Auto Industries	-1.53	-1.40	-0.16	4.40	2.35	0.18
Schrader Duncan Ltd.	0.60	-2.38	-0.76	0.59	1.05	2.70
Sharda Motor	-0.82	-0.26	0.05	2.59	1.12	0.87
Simpson & Company	-0.71	-0.53	-0.44	-0.34	-0.24	-0.60
Spicer India Ltd.	-1.17	0.37	0.88	0.65	0.80	1.62
Stanes Motor Parts Ltd.	-1.71	0.39	1.58	0.93	0.47	-0.56
Subros Ltd.	2.51	3.34	5.40	3.22	- 4.19	-3.45
Sunbeam Auto Pvt.Ltd.	1.10	-1.72	-0.69	0.37	0.65	2.83
Supraiit Engineering	-1.95	-1.72	1.03	1.46	-0.05	0.90
Swarai Automotives	-0.41	-2.43	-0.37	0.83	2.00	0.16
Talbros Automotive	-0.30	1.70	-0.85	-1.87	-0.26	0.55
TMIL Driveslines	-0.43	-0.80	-0.14	-1.28	0.88	-1.02
Tractors Engineers Ltd.	1.22	0.65	0.81	-0.34	1.63	-0.80
Triton Valves Ltd.	-0.42	0.73	0.90	-0.44	2.14	-0.31
Varroc Engineering	-0.61	0.37	1.05	-2.58	-0.09	2.82
Victor Gaskets India	0.63	-0.89	-0.78	-1.00	2.42	1.18
WABCO India Ltd.	-1.63	-1.63	-1.63	-0.42	0.47	0.47
XLO India Ltd.	1.15	1.26	0.44	-0.19	-0.40	-0.32
Cut off point	**-0.18**	**-0.13**	**0.47**	**0.15**	**0.48**	**0.05**

TABLE NO. 1.4 CLASSIFICATION MATRIX (AUTO ANCILLARIES - OTHERS)

Year	As per CR and LR		As per Discriminant score	
	Good	Poor	Good	Poor
2004-05	17	23	13	27
2005-06	16	24	18	22
2006-07	18	22	17	23
2007-08	18	22	18	22
2008-09	20	20	21	19
2009-10	19	21	18	22

2010-11	16	24	14	26
2011-12	17	23	18	22
2012-13	17	23	20	20
2013-14	17	23	18	22

Source: Computed from the Annual Reports of the Indian Automobile Industry

As per the rule the selected Others sector falling in the good and poor risk groups are presented in Table No. 1.1. The Discriminant Functions of the selected years are presented in Table No. 1.2, where the Co-efficient for 'a' and 'b' indicates values for Current and Quick Ratios respectively. It is evident from the table that the Current Ratio appeared to be stronger than the Liquid Ratios during the year 2004-05 to 2013-14. The Table No. 1.3 presents the data relating to the Discriminating Score of both the groups. The good risk companies as indicated by Z value are Auto Ignition Limited, Auto Line Industries Limited, Banco Products (India) Limited, Brakes India Limited, Fiem Industries Limited, JBM Auto Limited, LG Balakrishnan and Bros. Limited, Lucas Indian Services Limited, Lumax Automotive Systme Limited, Lumax Auto Technologies Limited, Munjal Auto Industries Limited, Spicer India Limited, Stanes Motor Parts Limited, Subros Limited, Suprajit Engineering Limited, Tractors Engineers Limited, Triton Valves Limited and Varroc Engineering Private Limited in 2006-07, Auto Line Industries Limited, Brakes India Limited, Fiem Industries Limited, Jay Ushin Limited, JBM Auto Limited, LG Balakrishnan and Bros. Limited, Lucas Indian Services Limited, Lumax Automotive Systme Limited, Lumax Auto Technologies Limited, Rico industries Limited, Schrader Duncan Limited, Sharda Motor Industries Limited, Spicer India Limited, Stanes Motor Parts Limited, Subros Limited, Sun Beam Auto Private Limited, Suprajit Engineering Limited, and Swaraj Automotives Limited in 2007-08, Auto Ignition Limited, Bharat Seats Limited, Brakes India Limited, Canara Workshops Limited, CMH Tools Limited, Harita Seating Systems Limited, Johnsons Control India Private Limited, KEW Industries Limited, Lucas Indian Services Limited, Mipco Seamless Rings (Gujarat) Limited , Rico Auto Industries Limited, Schrader Duncan Limited, Sharda Motor Industries Limited, Spicer India Limited, Sun Beam Auto Private Limited, Swaraj Automotives Limited, TML Drivelines, Tractors Engineers Limited, Triton Valves Limited and Victor Gaskets India Limited in 2008-09, Canara Workshops Limited, Johnson Controls India Private Limited, KEW Industries Limited, LG Balakrishnan and Bros. Limited, Lumax Automotive Systems Limited, Mipco Seamless Rings (Gujarat) Limited, Perfect Circle India Limited, Rico Industries Limited, Schrader Duncan Limited, Sharda Motor Industries Limited,Spicer India Limited, Sunbeam Auto Private Limited, Suprajit Engineering Limited, Swaraj Automotives Limited, Talbros Automotive Components Limited,Varroc Engineering Private Limited, Victor Gaskets India Limited and WABCO India Limited in 2009-10,Alicon Castalloy Limited, Auto Ignition Limited, Canara Workshops Limited, CMH Tools Limited, Harita Seating Systems Limited, Jay Ushin Limited, LG Balakrishnan Bros Limited,Lumax Automotive Systems Limited,Mipco Seamless Rings (Gujarat) Limited, Perfect Circle India Limited, Remsons Industries Limited, Schrader Duncan Limited, Simpson and Company Limited, Stanes Motor Parts Limited, Suprajit Engineering Limited, Swaraj Automotives Limited, Talbros Automotive Components Limited, TML Drivelines, Varroc Engineering Private Limited and WABCO India Limited in 2012-13, Auto Ignition Limited, Auto Line Industries Limited, Banco Products (India) Limited, Bharat Seats Limited, Brakes India Limited, JBM Auto Limited, Johnson Controls India Private Limited, Lucas Indian

Services Limited, Munjal Auto Industries Limited, Rico Industries Limited, Sharda Motor Industries Limited,Spicer India Limited, Subros Limited, Sunbeam Auto Private Limited, Tractors Engineers Limited, Triton Valves Limited, Victor Gaskets India Limited and XLO India Limited in 2013-14. The rest of the companies are poor risk in all the years.

The number of good and poor risk companies as per the criteria of Current and Liquid Ratios and as per the Discriminant Scores are presented in Table 1.4. It is clear from the table that the misclassification occurs in all the years from 2004-05 to 2013-14. It means that there is a significant difference between the criteria of Current and Liquid Ratios and the criteria of Discriminant Scores in all the years. Generally, companies with lower Current and Liquid Ratios in the good risk groups and the companies with higher Current and Liquid Ratios in poor risk group have been misclassified under the criteria of Discriminant Score. It is also inferred that the poor risk companies under the criteria of Current and Liquid Ratios appeared to be good risk under the criteria of Discriminant Score. Such companies are Auto Ignition Limited, Auto Line Industries Limited, Banco Products (India) Limited, Brakes India Limited, Fiem Industries Limited, JBM Auto Limited, LG Balakrishnan and Bros. Limited, Lucas Indian Services Limited, Lumax Automotive Systme Limited, Lumax Auto Technologies Limited, Munjal Auto Industries Limited, Spicer India Limited, Stanes Motor Parts Limited, Subros Limited, Suprajit Engineering Limited, Tractors Engineers Limited, Triton Valves Limited and Varroc Engineering Private Limited in 2006-07, Auto line Industries Limited, Brakes India Limited, Fiem Industries Limited, Jay Ushin Limited, JBM Auto Limited, LG Balakrishnan and Bros. Limited, Lucas Indian Services Limited, Lumax Automotive Systme Limited, Lumax Auto Technologies Limited, Rico Industries Limited, Schrader Duncan Limited, Sharda Motor Industries Limited,Spicer India Limited, Stanes Motor Parts Limited, Subros Limited, Sun Beam Auto Private Limited, Suprajit Engineering Limited, and Swaraj Automotives Limited in 2007-08, Auto Ignition Limited, Bharat Seats Limited, Brakes India Limited, Canara Workshops Limited, CMH Tools Limited, Harita Seating Systems Limited, Johnsons Control India Private Limited, KEW Industries Limited, Lucas Indian Services Limited, Mipco Seamless Rings (Gujarat) Limited , Rico Auto Industries Limited, Schrader Duncan Limited, Sharda Motor Industries Limited, Spicer India Limited, Sun Beam Auto Private Limited, Swaraj Automotives Limited, TML Drivelines, Tractors Engineers Limited, Triton Valves Limited and Victor Gaskets India Limited in 2008-09, Canara Workshops Limited, Johnson Controls India Private Limited, KEW Industries Limited, LG Balakrishnan and Bros. Limited, Lumax Automotive Systems Limited, Mipco Seamless Rings (Gujarat) Limited, Perfect Circle India Limited, Rico Industries Limited, Schrader Duncan Limited, Sharda Motor Industries Limited,Spicer India Limited, Sunbeam Auto Private Limited, Suprajit Engineering Limited, Swaraj Automotives Limited, Talbros Automotive Components Limited,Varroc Engineering Private Limited, Victor Gaskets India Limited and WABCO India Limited in 2009-10,Alicon Castalloy Limited,Auto Ignition Limited, Canara Workshops Limited, CMH Tools Limited, Harita Seating Systems Limited, Jay Ushin Limited, LG Balakrishnan Bros Limited,Lumax Automotive Systems Limited, Mipco Seamless Rings (Gujarat) Limited, Perfect Circle India Limited,Remsons Industries Limited, Schrader Duncan Limited, Simpson and Company Limited, Stanes Motor Parts Limited, Suprajit Engineering Limited, Swaraj Automotives Limited, Talbros Automotive Components Limited, TML Drivelines, Varroc Engineering Private Limited and WABCO India Limited in 2012-13, Auto Ignition Limited, Auto Line Industries Limited, Banco Products

(India) Limited, Bharat Seats Limited, Brakes India Limited, JBM Auto Limited, Johnson Controls India Private Limited, Lucas Indian Services Limited, Munjal Auto Industries Limited, Rico Industries Limited, Sharda Motor Industries Limited,Spicer India Limited, Subros Limited, Sunbeam Auto Private Limited, Tractors Engineers Limited, Triton Valves Limited, Victor Gaskets India Limited and XLO India Limited in 2013-14. It is to be noticed that the number of good risk companies as per the criteria of Discriminant Score is more than the number of good risk companies as per the criteria of Current and Quick Ratios in the year 2005-06, 2008-09, 2011-12, 2012-13 and 2013-14. The remaining years the number of good risk companies as per the criteria of Discriminant Score is less than the number of good risk companies as per the criteria of Current and Quick Ratios.

Findings

The number of good risk companies as per the criteria of Discriminant Score is more than the number of good risk companies as per the criteria of Current and Quick Ratios in the year 2005-06,2008-09, 2011-12,2012-13 and 2013-14. The remaining years the number of good risk companies as per the criteria of Discriminant Score is less than the number of good risk companies as per the criteria of Current and Quick Ratios.

CONCLUSION

The study result shows that as per Discriminant analysis, repaying capacity was good in Auto Ancillaries Others sector. It is more important for on-going concerns. It is necessary for all companies either small or large because it means collecting cash from customers in time so that having no difficulty in paying short term debts. Auto ancillaries sectors are rising continuously. It should continue the importance given to this industry to have a better growth of our economy.

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