

## LONG TERM SOLVENCY ANALYSIS OF SELECT PASSENGER CAR COMPANIES IN INDIA

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### ABSTRACT

India was the fourth largest car manufacturer in the world in 2019. Indian auto manufacturers produced 26.36 million motor vehicles in 2019-20. Overall, domestic automobiles sales increased at 1.29% CAGR between FY16-FY20 with 21.55 million vehicles being sold in FY20. The present paper measures the long term solvency analysis of select passenger car companies in India for the period of 10 years from 2010-2011 to 2019-2020. The secondary data were used for this study and analysed the data by using of Ratio analysis, Mean, SD, and ANOVA. Finally it conclude that companies belong to the same industry followed a different debt equity position during the study period.

**Keywords:** Leverage, Long term Requirement, Debt equity position.

### INTRODUCTION

The automobile sector today is one of the key sectors of the country contributing majorly to the economy of India. The Indian automotive industry has been experiencing steady growth in the demand for and sales of passenger cars, owing to improvement in economic condition and rise in the consumers' disposable incomes. The Indian automotive industry has shifted from just being a components manufacturer, to an assembler and manufacturer of complete vehicles, including passenger cars. A consistent rise in population has been a major factor responsible for the rise in the automotive industry's revenue, both for commercial vehicles and passenger cars.

### REVIEW OF LITERATURE

**Adrian Morar (2009)** A bank disposes of an adequate liquidity potential when it's able to obtain the necessary funds immediately and at a reasonable price. The price of the liquidity depends on the market conditions and on the

market perception of the risk level of the debtor institution.

**Viral & Viswanathan(2011)** Good economic prospects yield cheaper short-term debt, inducing entry of higher-leverage firms. Consequently, adverse asset shocks in good times lead to greater de-leveraging and sudden drying up of market and funding liquidity.

**Angamuthu & Sivanandam (2012)** Results of the analysis reveals that there is no risk of solvency either in fulfilling long-term commitment in most of the cement manufacturing companies under study. Overall this study envisages that long term solvency position is good.

### OBJECTIVE OF THE STUDY:

- To ascertain Long Term Solvency position of select Passenger car companies in India.
- To study about the Long- Term financial strengths of select Passenger car companies in India.

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## RESEARCH METHODOLOGY

The present study is analytical in nature. Secondary data required for the study.

### SOURCE OF DATA

Data used for the study are secondary in nature. Secondary data are collected from Capitaline Plus data base.

### SAMPLING

**The sample companies are:**

1. Fiat India Automobiles Ltd
2. Ford India Pvt Ltd
3. General Motors India Pvt Ltd
4. Hindustan Motors Ltd.
5. Honda Cars India Ltd.
7. Hyundai Motor India Ltd
8. Mahindra & Mahindra Ltd.
9. Mahindra Electric Mobility Ltd.
10. Maruti Suzuki India Ltd.
11. Toyota Kirloskar Motor Pvt Ltd

### PERIOD OF STUDY

The study covers period of ten years from 2010-11 to 2019-20. The financial year runs from 1st April to 31st March every year.

### FRAMEWORK OF ANALYSIS

The statistical tools used to analyze the data include Ratio analysis, Mean, SD, CV and ANOVA.

## LIMITATIONS OF THE STUDY

- Financial information collected for the present study is entirely secondary in nature.
- The study is restricted to select companies for the period of ten years.

### LONG TERM SOLVENCY RATIOS

Solvency ratios are used to moderator the long term financial soundness of any business. Long term Solvency means the ability of the Enterprise to meet its long term obligation on the due date. Usually the following ratios are calculated to judge the long term financial solvency of the concern.

1. Debt equity ratio
2. Proprietary ratio
3. Interest Coverage Ratio

### ANALYSIS AND INTERPRETATION

#### DEBT-EQUITY RATIO

The relationship between borrowed funds and owner's capital is a popular measure of the long – term financial solvency of a firm. This relationship is shown by the debt- equity ratio. It is determined to ascertain soundness of the long – term financial policies of the company.

**Debt- Equity Ratio = Total Debt /Share holders Fund**

**Table No. 1. Mean, S.D, C.V of Long term Debt to Equity Ratio for Select Passenger car Companies in India**

Year	Fiat India	Ford India	General Motors	Hindustan	Honda Cars	Hyundai	M&M	Mahindra Electric	Maruti Suzuki	Toyota	Average	SD	CV
2010-11	1.26	0.85	0.10	2.01	0.10	1.02	0.29	0.49	0.02	1.00	0.71	0.64	89.04
2011-12	2.44	1.13	0.10	1.25	0.54	0.58	0.24	0.69	0.03	1.18	0.82	0.72	88.16
2012-13	1.98	1.02	0.31	2.65	0.52	0.47	0.24	0.58	0.01	1.66	0.94	0.87	91.94
2013-14	1.27	0.58	0.49	2.64	0.20	0.40	0.22	0.50	0.02	2.02	0.83	0.87	104.01
2014-15	0.69	0.79	0.44	2.64	0.85	0.30	0.17	0.61	0.01	2.07	0.86	0.84	98.54

<b>2015-16</b>	0.40	1.40	0.44	2.64	1.60	0.25	0.10	0.26	0.08	2.11	0.93	0.93	100.61
<b>2016-17</b>	0.30	1.76	-0.11	2.64	1.34	0.16	0.08	0.08	0.08	1.84	0.82	0.98	120.51
<b>2017-18</b>	0.35	2.01	0.15	2.64	1.29	0.10	0.08	0.05	0.08	1.41	0.82	0.95	116.80
<b>2018-19</b>	0.39	1.46	0.36	2.64	0.55	0.08	0.07	0.04	0.08	1.29	0.70	0.85	122.33
<b>2019-20</b>	0.35	0.74	0.33	2.64	0.10	0.07	0.06	0.21	0.08	1.34	0.59	0.82	139.15
<b>Average</b>	0.94	1.17	0.26	2.43	0.71	0.34	0.16	0.35	0.05	1.59	0.80		
<b>SD</b>	0.77	0.47	0.19	0.46	0.54	0.29	0.09	0.25	0.03	0.40			
<b>CV</b>	81.42	40.10	73.84	18.90	76.39	85.86	55.93	71.38	67.95	25.25			
<b>ANOVA</b>	F Value is 34.233						Sig. Value is .000						

The mean value of Interest Long Term Debt to Equity Ratio of the select ten companies are found to range between 0.05 (Maruthi Suzuki) and 2.43 (Hindustan). Mean LTDER amounts to 0.80. Fiat India (0.94), Ford India (1.17), Hindustan (2.43) and Toyota (1.59) have LTDER above the average. Comparing to co-efficient of variation across the Ten companies shows that the level of LTDER has remained highly stable with Hindustan, while it is highly instable with Hyundai. Year-wise comparison of LTDER shows that during the year 2012-2013, the ratio has remained the highest. Compared against the grand mean of 0.80, as we calculated

P Value is less than .001, there exists significant mean difference in Long term debt to equity ratio among select companies.

### PROPRIETARY RATIO

Proprietary ratio relates the shareholders funds to total assets. This ratio shows the long term or future solvency of the business. It is calculated dividing shareholders funds by the total assets. This ratio shows the financial strength of the company.

**Proprietary Ratio = Shareholders' Fund / Total Assets**

**Table No. 2. Mean, S.D, C.V of Long term Proprietary Ratio for Select Passenger car Companies in India**

Year	Fiat India	Ford India	General Motors	Hindustan	Honda Cars	Hyundai	M&M	Mahindra Electric	Maruti Suzuki	Toyota	Average	SD	CV
2010-11	2.89	1.00	0.16	3.46	0.83	1.02	0.29	0.50	0.04	1.08	1.13	1.15	101.94
2011-12	3.04	1.38	0.16	4.86	1.11	0.66	0.27	0.69	0.05	1.25	1.35	1.51	111.85
2012-13	2.25	1.32	0.56	5.89	0.97	0.62	0.26	0.62	0.08	1.96	1.45	1.71	117.70
2013-14	1.72	0.95	1.35	5.90	0.69	0.54	0.24	0.64	0.08	2.50	1.46	1.72	117.64
2014-15	1.09	1.12	1.44	5.89	1.61	0.44	0.22	1.48	0.05	2.24	1.56	1.67	106.97
2015-16	0.65	1.55	1.44	5.89	2.23	0.32	0.16	0.74	0.01	2.11	1.51	1.73	114.51
2016-17	0.54	2.11	0.17	5.89	2.20	0.20	0.12	0.14	0.01	1.84	1.32	1.83	138.76
2017-18	0.58	2.49	0.28	5.89	2.35	0.14	0.10	0.07	0.01	1.43	1.33	1.86	139.38
2018-19	0.56	2.49	0.36	5.89	1.35	0.14	0.09	0.07	0.01	1.30	1.23	1.82	148.55
2019-20	0.48	1.74	0.33	5.89	0.64	0.10	0.08	0.31	0.01	1.34	1.09	1.78	162.82
Average	1.38	1.62	0.62	5.54	1.40	0.42	0.18	0.53	0.04	1.71	1.34		
SD	1.02	0.58	0.55	0.80	0.66	0.30	0.08	0.42	0.03	0.49			
CV	73.87	35.77	88.71	14.44	47.41	70.88	44.70	80.58	83.30	28.57			
ANOVA	F Value is 77.902						Sig. value is .000						

The mean value of Proprietors Ratio of the select ten companies are found to range between 0.04 (Maruthi suzuki) and 5.54 (Hindustan). Mean DER amounts to 1.34. Fiat India (1.38), Ford India (1.62), Hindustan (5.54) Honda cars (1.40) and Toyota (1.71) have DER above the average. Comparing to co-efficient of variation across the Ten companies shows that the level of DER has remained highly stable with Hindustan, while it is highly instable with General Motors. Year-wise comparison of DER shows that during the year 2014-2015, the ratio has remained the highest. Compared against the

grand mean of 1.34, as we calculated P Value is less than .001, there exists significant mean difference in debt and equity ratio among select companies.

### INTEREST COVERAGE RATIO

This ratio measures the debt servicing capacity of a firm in so far as fixed interest on long term loan is concerned. That is, the relationship between Earnings before Interest and Tax (EBIT) and fixed interest charges.

**Interest coverage ratio = EBIT / Interest**

**Table No. 3. Mean, S.D, C.V of Interest Coverage Ratio for Select Passenger car Companies in India**

Year	Fiat India	Ford India	General Motors	Hindustan	Honda Cars	Hyundai	M&M	Mahindra Electric	Maruti Suzuki	Toyota	Average	SD	CV
2010-11	0.04	-9.72	-54.73	-2.35	-1.33	6.82	49.55	-31.51	125.35	0.00	8.21	49.02	596.98
2011-12	0.23	-2.15	-4.44	-5.59	-2.67	27.71	23.16	-10.76	35.74	0.00	6.12	16.28	265.88
2012-13	0.87	-1.32	-4.44	-4.14	-9.01	13.78	24.26	-6.60	14.77	0.00	2.82	10.96	389.11
2013-14	2.03	-2.47	-5.20	-0.82	-11.87	69.31	17.86	-11.00	19.32	-2.20	7.50	24.13	321.86
2014-15	2.17	-13.08	-9.90	-4.36	-3.54	103.12	20.45	-13.28	21.62	18.93	12.21	34.75	284.53
2015-16	3.74	-3.34	-20.83	-2.09	2.58	68.73	24.03	-18.69	78.05	51.81	18.40	35.76	194.38
2016-17	6.60	0.00	-165.09	-0.56	2.79	21.20	27.16	-53.69	88.26	40.15	-3.32	67.22	-2025.95
2017-18	7.66	0.17	-28.14	-0.91	0.72	29.82	55.39	-115.23	27.32	48.19	2.50	48.41	1937.25
2018-19	5.06	1.88	5.02	17.12	4.84	26.04	56.78	-47.16	107.73	39.51	21.68	40.77	188.05
2019-20	2.69	1.36	3.94	-18.60	2.73	32.08	46.31	-10.88	31.22	9.84	10.07	20.35	202.12
Average	3.11	-2.87	-28.38	-2.23	-1.48	39.86	34.50	-31.88	54.94	20.62	8.62		
SD	2.63	4.86	51.24	8.62	5.45	30.41	15.53	33.56	40.93	22.08			
CV	84.45	-169.45	-180.53	-386.46	-369.40	76.29	45.01	-105.28	74.50	107.05			
ANOVA	F Value is 11.283						Sig. Value.000						

The mean value of Interest Coverage Ratio of the select ten companies are found to range between -31.88 (Mahindra Electric) and 54.94 (Maruthi Suzuki). Mean ICR amounts to 8.62. Hyundai (39.86), M&M (34.50), Maruthi Suzuki (54.94) and Toyota (20.62) have ICR above the average. Comparing to co-efficient of variation across the Ten companies shows that the level of ICR has remained highly stable with Hindustan, while it is highly instable with Toyota. Year-wise comparison of ICR shows

that during the year 2018-2019, the ratio has remained the highest. Compared against the grand mean of 8.62, as we calculated P Value is less than .001, there exists significant mean difference in Interest Coverage ratio among select companies.

### FINDINGS

- Gradual increase in their long term debt equity position.

- There has been moderate fluctuation in their Interest coverage ratio.
- There has been Consent in their proprietary ratio.

## CONCLUSION

Ratio analysis helps to evaluate the financial statements of the firms and comparison of financial performance also investigated over a study period. The study found that there is the positive strong relationship of long term solvency ratios. After analyzing all the aspects of long term solvency ratios we can say that Hyundai Motor India Ltd and Mahindra & Mahindra Ltd are satisfactory. From the ANOVA result it can conclude that companies comes under the same industry follows a different long term solvency position during the study period.

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