

Fundamental and Financial Performance Analysis of Selected Automobile Companies: A Comparative Study on Tata Motors, Ashok Leyland, Olectra Greentech, Force Motors and SML Isuzu

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Abstract: *The research aims to help investors make informed financial decisions when investing in the stock market, by using fundamental analysis. Fundamental analysis helps investors calculate the intrinsic value of a company and assess its performance by analyzing its basic elements. There are ample opportunities for investors in India to engage in the stock market, thanks to its well-developed financial market. The Indian automobile industry stands out as an area where both Indian and foreign investors invest substantial funds. However, automobile industry can be unpredictable. Investors should keep a watch on their investments before putting their money. This study can serve as a guide, offering insights to investors on making informed decisions in the stock market, especially when investing in Indian automobile companies.*

Keywords: Fundamental analysis, Stock market, Investors, Financial decisions, Indian automobile companies

1. Introduction

The Indian automobile industry is poised for strong growth in the coming years, driven by factors such as government policies, the growing middle class, and the increasing demand for personal mobility. However, companies need to be aware of the challenges facing the industry, such as the rising cost of raw materials and the increasing competition from foreign automakers.

The paper analyzes the growth and financial performance of selected automobile companies in India over a period of five years, from 2016 to 2021. It also explores the fundamental analysis of the automobile industry and compares the risks, strengths, and weaknesses of different companies.

The study finds that companies with strong brands and a wider product portfolio tend to be more profitable than companies with weaker brands and a narrower product offering. Additionally, companies that are well-positioned to benefit from government policies, such as the production-linked incentive (PLI) scheme, are more likely to be successful in the long term.

The researchers recommend that companies focus on improving their financial performance, investing in new technologies, and expanding their product offerings in order to succeed in this competitive market.

2. Problem Statement

This research seeks to assess the operational efficiency, financial stability, and stakeholder value generation of selected automobile companies. By analysing their financial statements, key performance indicators, and industry positioning, the study aims to evaluate the companies' overall financial health and growth potential within the automotive sector.

3. Objectives of the Study

- To Identify Key Financial Ratios: Determine the most relevant financial ratios that are commonly used to evaluate the performance of companies in the automotive industry.
- To Perform Comparative Analysis: Compare the financial ratios of different companies within the automotive industry, to identify trends, similarities, and differences.
- To Assess Financial Stability: Evaluate the financial stability of companies in the automotive sector by analyzing ratios related to liquidity, solvency, and working capital management.

4. Limitations of the Study

- Since the publisher may have utilized the secondary data for other purposes, it is possible that this study's usage of it may not always represent the actual situation.
- Making decisions based on secondary data is one type of risk since the future is unpredictable.

5. Research Methodology

The research addresses the need to thoroughly assess and evaluate the financial health, operational efficiency, and overall performance of specific automobile companies.

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Type of Data: Secondary Data

Period of Study: 2019 - 2023

Population: Companies in Automobile Sector

Sources of Data: Balance Sheet, Stock Market, Relevant Websites

Nature of Data: Quantitative

Statistical Methods

Arithmetic Mean (Average),
Standard Deviation (SD),
One Way Analysis of Variance (ANOVA)

Economy Analysis

India had US\$ 607 billion in foreign currency reserves as of July 2023. India's exports of goods and services were predicted to be worth US\$ 60.09 billion in June 2023. The expected value of India's total exports for FY23 (April–June 2023) was US\$ 182.70 billion. The expected value of India's exports of goods in June 2023 was 32.97 billion US dollars. India's total imports at that time were expected to be worth US\$205.29 billion. The expected value of India's imports of goods in June 2023 was US\$53.10 billion. Investments in private equity (PE) and venture capital (VC) totalled US\$ 27.5 billion in H1 2023, with 427 agreements totalling 60 major deals (deals worth more than US\$ 100 million) worth US\$ 22.3 billion. India's outward foreign direct investment (OFDI), according to the Department of Economic Affairs,

was US\$ 973.9 million in June 2023. In July 2023, the total income from the Goods and Services Tax (GST) was Rs.1, 65, 105 crore (US\$19.93 billion). As of June 30, 2023, the asset base of mutual funds was Rs.44, 39, 187 crore (US\$ 536.09 billion). Principal Index Sectors In contrast to 146.0 for FY23 (April–June), the composite index of the eight key industries was 154.5 for FY24 (April–June). The Index of Industrial Production (IIP) for India for the period of April to May 2023 was 142.8. In June 2023, the WPI Provisional Wholesale Price Index (WPI) for all commodities was 149.0.

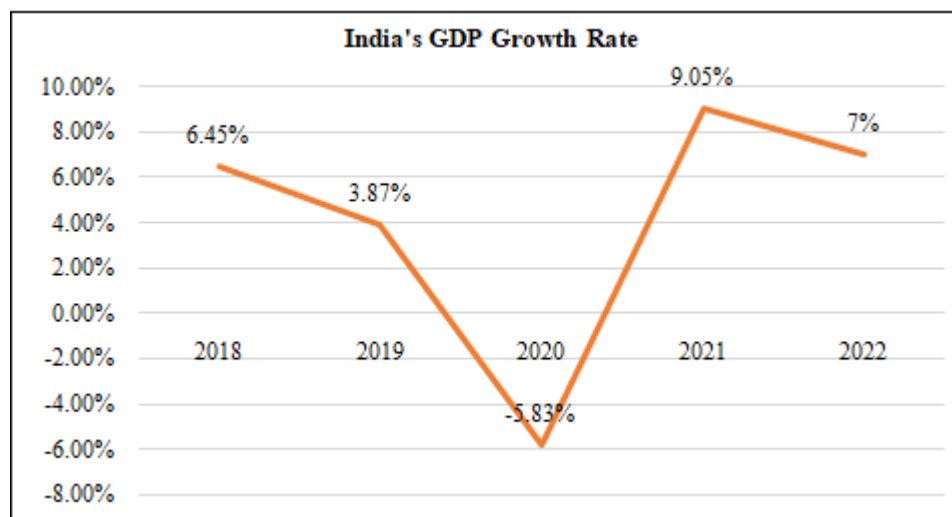
GDP Growth Rate

The Gross Domestic Product (GDP) measures the total value of goods and services produced within a country's borders during a specific period, typically a year. India's GDP growth rate has shown significant fluctuations over the past four years, primarily due to the impact of the COVID - 19 pandemic and subsequent recovery efforts.

In 2019, India's GDP growth rate was 3.87%, which represented a 2.58% decrease compared to the previous year. The pandemic led to a sharp decline in GDP growth in 2020, with a rate of - 5.83%. However, India experienced an impressive rebound in 2021, with a GDP growth rate of 9.05%, marking a 14.88% increase from 2020. In 2022, India's GDP growth rate was 7.00%, showing a 2.05% decrease compared to the previous year.

Several rating agencies have made forecasts regarding India's GDP growth rate for 2023 and 2024. Moody's predicts 6.7% growth in 2023, followed by 6.1% in 2024. S&P Global expects 6.6% growth in 2023, followed by 6.3% in 2024. ICRA predicts 6% growth for both years, while CRISIL forecasts 6% growth in 2023 and 6.8% growth in 2024.

Overall, India's economy has experienced significant volatility in recent years, driven by the COVID - 19 pandemic and subsequent recovery efforts. Despite a sharp contraction in 2020, there was a remarkable recovery in 2021, followed by a slight slowdown in 2022. With various rating agencies predicting growth rates for 2023 and 2024, it remains to be seen how the economy will perform in the coming years.



Inflation Rate:

Inflation is the rise in the general level of prices which reduces the purchasing power of each unit of currency. The inflation Rate in India is expected to be 5.90 percent by the end of this quarter, according to Trading Economics global macro models and analysts' expectations. In the long term, the India Inflation Rate is projected to trend around 4.10 percent in 2024 and 4.30 percent in 2025, according to our econometric models.

Unemployment Rate:

Unemployment is a situation where one is willing to work but is not able to get a job. The unemployment Rate in India averaged 8.15 percent from 2018 until 2023, reaching an all-time high of 23.50 percent in April 2020 and a record low of 6.40 percent in September 2022

The unemployment rate in India is expected to be 7.90 percent by the end of this quarter, according to Trading Economics global macro models and analysts' expectations.

In the long term, the India Unemployment Rate is projected to trend around 7.50 percent in 2024 and 7.70 percent in 2025, according to our econometric models.

Company Analysis

Operating Profit Margin (OPM) The Operating Profit Margin is the ratio of operating profit to the total revenue. It specifies the effectiveness with which a company controls the cost and expenses related to their normal business operations. Table 1 shows the OPM of the selected companies for the last 5 years. From table 1, we can clearly see that the average OPM of Ashok Leyland is highest among all the five companies. So, Ashok Leyland has been most successful in controlling the cost and expenses of operation. Standard Deviation measures the degree of variability. It indicates that the OPM of OlectraGreentec has the highest degree of variability, whereas Ashok Leyland India has the lowest degree of variability.

Table 1: Showing ANOVA Table for Operating Profit Margin (%)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	0.03595	4	0.008987399	3.676262	0.021158	2.866081
Within Groups	0.048894	20	0.002444711			
Total	0.084844	24				

Table 2: Showing Operating Profit Margin (%)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	8.16%	14.79%	-8.92%	7.63%	5.58%
2019- 20	6.88%	14.72%	2.51%	8.72%	1.47%
2020- 21	12.90%	16.65%	7.17%	0.65%	1.80%
2021- 22	8.70%	10.53%	14.26%	2.07%	-3.81%
2022- 23	9.20%	12.22%	12.95%	6.55%	4.50%
Mean	0.09	0.13	0.06	0.05	0.02
SD	.0202	0.0161	0.0839	0.0318	0.0326

Net Profit Margin (NPM): Net Profit Margin is the ratio of net profit to total revenue earned by the company. This indicates how much a company is able to earn after meeting all direct and indirect expenses for every rupee of revenue. The NPM of the selected companies is described in Table 3. It is clear that Ashok Leyland and OlectraGreentec India earned the highest in all and hence Ashok Leyland and OlectraGreentec scores above all the companies as far as the NPM is concerned.

Table 3: Showing ANOVA Table for Net Profit Margin (%)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	0.031388	4	0.007847	2.058043	0.124648	2.866081
Within Groups	0.076257	20	0.003813			
Total	0.107645	24				

Table 4: Showing Table for Net Profit Margin (%)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	-0.10	0.06	-0.09	0.04	0.01
2019- 20	-0.05	0.02	0.07	0.02	-0.02
2020- 21	-0.05	-0.01	0.03	-0.06	-0.23
2021- 22	-0.04	-0.01	0.06	-0.03	-0.11
2022- 23	0.01	0.03	0.06	0.03	0.01
Mean	-0.05	0.02	0.02	0.00	-0.07
SD	0.033	0.028	0.060	0.038	0.091

Earnings Per Share (EPS): EPS indicates how much earning is being generated for each share by the company. It is the ratio of earning available to an equity shareholder to the total number of outstanding equity shares. Higher the EPS, the greater is the profitability of the company. The EPS for selected companies is shown in table 5. From table 5, we can understand that the average EPS of Force Motors is the highest among all the five companies. The degree of variability is least in case of Ashok Leyland and highest in case of Force Motors India.

Table 5: Showing ANOVA Table for Earnings Per Share (EPS)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	10485.16	4	2621.29	1.059686	0.4021	2.866081
Within Groups	49472.98	20	2473.649			

Table 6: Showing Table for Earnings Per Share (EPS)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	-84.89	7.08	-2.52	108.85	13.53
2019- 20	-34.88	1.15	1.65	38.08	-14.55
2020- 21	-36.99	-0.56	0.98	-93.83	-92.24
2021- 22	-29.88	-1.22	4.31	-69.13	-68.94
2022- 23	6.29	4.23	7.99	101.43	13.71
Mean	-36.07	2.14	2.48	17.08	-29.70
SD	29.05	3.11	3.51	84.51	43.44

Return on Equity (ROE): ROE is the ratio of earnings after taxes and preference dividend to owner’s equity. It indicates how much profit is generated using the owner’s equity capital. The ROE of the selected automobile companies for the last 5 years is depicted in table 7. From table 7, it is clear that among all the companies, Ashok Leyland which has the highest ROE. As far as the variability is concerned, SML Isuzu has the highest standard deviation. The degree of variability is least in case of OlectraGreentec.

Table 7: Showing ANOVA Table for Return on Equity (ROE)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	2418.756	4	604.6891	1.703629	0.188699	2.866081
Within Groups	7098.834	20	354.9417			
Total	9517.59	24				

Table 8: Showing Table for Return on Equity (ROE)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	9.11	23.76	-2.24	7.41	4.73
2019- 20	-39.64	4.32	1.84	2.55	-5.47
2020- 21	-12.57	-2.1	1.09	-6.72	-52.23
2021- 22	-6.97	-4.9	4.54	-5.21	-61.77
2022- 23	12.14	14.5	7.81	7.12	11.14
Mean	-7.59	7.12	2.61	1.03	-20.72
SD	18.55	10.66	3.38	5.99	30.24

Price Earnings Ratio (P/E Ratio): The Price Earnings Ratio is the ratio of market price per share to earnings per share. It indicates the responsiveness between earning capacity and share price in the market. The P/E Ratio position of the sample companies is depicted in table 9. From table 9, we notice that the average P/E Ratio of OlectraGreentec is uppermost in all five companies. It indicates that there is a higher degree of responsiveness between the earnings capacity and market share price in case of OlectraGreentec as compared to other companies. The degree of variability is highest in OlectraGreentec as well and least in Force Motors.

Table 9: Showing ANOVA Table for Price Earnings Ratio (P/E Ratio)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	90754.27	4	22688.57	1.730293	0.182868	2.866081
Within Groups	262251.1	20	13112.56			
Total	353005.4	24				

Table 10: Showing Table for Price Earnings Ratio (P/E Ratio)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	-2.05	12.9	-122.6	15.4	-61.59
2019- 20	-2.05	37.43	29.85	19.27	-20.62
2020- 21	-8.16	-202.68	220.74	-12.47	-4.91
2021- 22	-14.52	-96.11	481.7	-14.74	-7.19
2022- 23	57.89	32.91	77.5	11.49	54.16
Mean	6.22	-43.11	137.44	3.79	-8.03
SD	26.24	93.46	204.08	14.43	37.16

Dividend Per Share (DPS): The dividend per share is the ratio of dividend paid and a total number of outstanding shares. The higher the DPS, the higher are the earnings for the shareholders. The DPS position of the sample automobile companies is shown in table 11. From table 11, we can see that the average DPS of Force Motors is highest among all five companies. As far as the variability is concerned, the DPS is highest in case of Force Motors, and it is least in case of OlectraGreentec.

Table 11: Showing ANOVA Table for Dividend Per Share (DPS)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	282.5376	4	70.6344	38.80585	3.7E- 09	2.866081
Within Groups	36.404	20	1.8202			
Total	3183.9416	24				

Table 12: Showing Table for Dividend Per Share (DPS)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	1.0	31.21	0.00	9.19	13.36
2019- 20	0.0	117.39	0.00	26.27	0.00
2020- 21	0.0	0	0.00	-10.66	0.00
2021- 22	0.0	34.71	0.00	-7.23	0.00
2022- 23	0.0	13.71	5.00	9.86	0.00
Mean	0.20	39.4	1.0	5.5	2.7
SD	0.392594133	40.94837804	2	13.32078166	5.344

Dividend Payout Ratio (DPR): The Dividend Payout Ratio expresses the relationship between dividends per share and earnings per share. It indicates as to what percentage of earnings are being distributed to the shareholders of the company. The DPR position of sample companies is represented in table 13. From table 13, it can be concluded

that the DPR of Ashok Leyland is highest among all the five companies. The standard deviation is highest in case of Ashok Leyland, and it is lowest in case of Tata Motors which indicates that there is a greater stability as far as Dividend Payout Ratio is concerned.

Table 13: Showing ANOVA Table for Dividend Payout Ratio (DPR)

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	55.77489	4	1394.372	2.955861	0.045325	2.866081
Within Groups	9434.627	20	471.7313			
Total	15012.12	24				

Table 14: Showing Table for Dividend Payout Ratio (DPR)

Companies	Tata Motors	Ashok Leyland	Olectra Greentec	Force Motors	SMI ISUZU
2018- 2019	1.0	31.21	0.0	9.19	13.36
2019- 20	0.0	117.39	0.0	26.27	0.0
2020- 21	0.0	0	0.0	-10.66	0.0
2021- 22	0.0	34.71	0.0	-7.23	0.0
2022- 23	0.0	13.71	5.00	9.86	0.0
Mean	0.20	39.4	1.0	5.5	2.7
SD	0.3392594133	40.94837804	2	1332078166	5.344

Intrinsic Value

Calculation of Intrinsic Value

An asset's intrinsic value serves as a gauge of its worth. This metric is determined using a sophisticated financial model or

an objective computation. An asset's intrinsic worth is distinct from its market value at the moment. However, investors can determine if an asset is overvalued or undervalued by comparing it to its current price.

Table 15: Valuation of Share

Companies	Average DPR	Average Retention Ratio	Average ROE	Growth In Equity	Average P/E Ratio	Projected EPS	Intrinsic Value
Tata Motors	0.20	-0.4	-0.76	3.0344	6.22	25.38	157.9425642
Ashok Leyland	39.4	-0.56	7.12	-1.46	-43.11	-1.95	83.97096854
Olectra Greentec	1	0.84	2.61	0.0219	137.44	8.164981	1122.178659
Force Motors	5.486	-9	1.03	-9.27	3.79	485.8497	1841.370363
SML ISUZU	2.672	0.4	-20.72	-8.288	-8.03	-99.91848	802.3453944

Explanation of Valuation ofShare

Average DPS = Sum of DPS / No. of Years
 Average Retention Ratio= 1 - Average DPS
 Average ROE= Sum of ROE / No. of Years
 Growth in Equity= Average Retention Ratio * Average ROE
 Average
 P/E Ratio= Sum of P/E Ratio / No. of Years
 Projected EPS= (Current EPS * (1 + Growth in Equity))
 Intrinsic Value= Projected EPS * Average P/E Ratio

metrics such as DPS, DPR, and EPS, Ashok Leyland outperformed all other automakers on metrics such as NPS, OPM, and ROE, When it came to metrics like NPS and P/E, Olectra Greentech outperformed all other automakers.

The determination of a security's fair value is examined in fundamental analysis. The accounting ratios and other relevant factors are used in the firm analysis to look into the potential for future earnings. According to the analysis, SML Isuzu, Force Motors, and Olectra Greentech are undervalued since their intrinsic values exceed their market values. In this case, it suggests purchasing shares because they may go up in value in the future. In contrast, because their market worth exceeds their inherent value, Infosys, Tata Motors, and Ashok Leyland are overvalued.

6. Result

Table 16: Intrinsic Value

Companies	Intrinsic Value	Market Value as on 31.03.2003	Result
Tata Motors	157.94	420.8	Overvalued
Ashok Leyland	83.97	139.2	Overvalued
Olectra Greentec	1122.18	619.25	Undervalued
Force Motors	1841.37	1165.35	Undervalued
SMI ISUZU	802.35	742.5	Undervalued

7. Findings and Conclusions

Fundamental analysis is significant while making investment decisions. It gives insight into how well a business is doing financially. The following are the study's primary findings, Force Motors India outperformed all other automakers in

8. Recommendation

Fundamental analysis determines the fair value of a security by examining various aspects. Future earnings of the company are evaluated by analyzing the company's financial ratios and other related parameters.

According to the study, OlectraGreentec, Force Motors, and SML Isuzu are considered undervalued when comparing their intrinsic values. This suggests that the prices of these companies may increase in the future, and investors should

consider these companies for investment. However, companies with intrinsic values lower than the market value are considered overvalued stocks. Therefore, investors should contemplate selling their stocks.

Investors find a good opportunity to invest in companies with lower costs compared to their intrinsic values. Each of these stocks has its own risk - return profile.

When assessing companies, it is important to consider growth, financial stability, and overall strategies. Investors should also take into account risk tolerance and investment zone.

References

- [1] Tarawneh, M. (2006). A comparison of financial performance in the banking sector: Some evidence from Omani commercial banks. *International Research Journal of Finance and Economics*, 3 (3), 101 - 112.
- [2] Behcet, F. (2019). A Comparative Study of Financial Ratios of Automotive Industry: A Cross Country Analysis (Master's thesis, Eastern Mediterranean University - Doğu Akdeniz Üniversitesi).
- [3] Najjar, N. J. (2013). Can financial ratios reliably measure the performance of banks in Bahrain. *International Journal of Economics and Finance*, 5 (3), 152 - 163.
- [4] Yap, B. C. F., Mohamad, Z., & Chong, K. R. (2013). A longitudinal and cross - industry study on the stability of financial ratios of Malaysian companies. *Accounting and Finance Research*, 2 (3), 45 - 52.
- [5] Arab, R. O., Masoumi, S. S., & Barati, A. (2015). Financial performance of the steel industry in India: A critical analysis. *Middle - East Journal of Scientific Research*, 23 (6), 1085 - 1090.
- [6] Asiri, B. K., & Hameed, S. A. (2014). Financial ratios and firm's value in the Bahrain Bourse. *Research journal of finance and accounting*, 5 (7), 1 - 9.
- [7] Laitinen, E. K., Lukason, O., & Suvas, A. (2014). Behaviour of financial ratios in firm failure process: An international comparison. *International journal of finance and accounting*, 3 (2), 122 - 131.
- [8] Soni, S., & Chandak, G. (2017). Fundamental analysis of car manufacturing companies in India for 1.4.2005 to 31.3.2016. *International Research Journal of Management, IT and Social Sciences*, 4 (1), 39 - 52.
- [9] Mahapatra, S. (2021). Financial Performance Analysis of Selected Automobile Companies in India. Available at SSRN 3892284.
- [10] Kanagavalli, G., & Devi, R. S. (2018). Financial performance of selected automobile companies. *International Journal of Management (IJM)*, 9 (4), 14 - 23.
- [11] Arumugam, D., Kumar, A., & Preetha, R. (2016). Factors Determining profitability in Indian automobile industry. *Indian journal of commerce and management studies*, 7 (2), 64 - 69.
- [12] KUMAR, S. (2021). Financial Performance Of Select Automobile Companies In India. *Ilkogretim Online*, 20 (6), 2190 - 2203.