

# A Study on Stock Analysis of Automobile Industries

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**Abstract:** *This study investigates the stock movement of automobile companies listed on the NIFTY50 index, focusing on five major firms: TVS Motor, MRF, Ashok Leyland, Maruti Suzuki, and Tata Motors. Using quarterly and annual data from January 2021 to December 2021, the analysis identifies key trends and volatility factors impacting stock prices in the automotive sector. Key findings suggest that fluctuations in stock prices are influenced by quarterly performance, industry trends, and macroeconomic conditions. Additionally, the report highlights the impact of the COVID-19 pandemic on the sector, with companies facing challenges such as reduced demand, increased costs, and supply chain disruptions. The study concludes that stock movements in this industry are volatile, urging investors to monitor these fluctuations closely before making investment decisions.*

**Keywords:** Automobile Industry, Stock Analysis, NIFTY50, Financial Market Volatility, COVID-19, Impact Indian Stock Market, Quarterly Performance, Investment Strategy, Equity Analysis, Market Trends, Risk Management, Financial Performance

## I. INTRODUCTION

India has serious areas of strength for a concerning homegrown interest and commodities. In FY22, all out traveler vehicle deals arrived at 3.07 million, while auto sends out from India remained at 5,617,246. This is on the grounds that India enjoys huge money saving advantages, as auto firms save 10-25% on tasks opposite Europe and Latin America. The Indian car industry is focusing to build product of vehicles by multiple times during 2016-26.

In FY22, 22.93 million automobiles were produced annually in India. Due to India's large proportion of young people and expanding middle class, the two-wheeler category dominates the industry in terms of volume. Additionally, the expanding interest of businesses in investigating the rural markets contributed to the sector's expansion. India is a significant exporter of automobiles and anticipates rapid export development in the near term. By 2022, it is anticipated that a number of initiatives by the Indian government and significant automobile producers will position India among the top four global markets for two- and four-wheel vehicles.

India is the world's largest tractor maker, second largest bus manufacturer, and third largest producer of heavy trucks, giving it a significant position in the market for heavy vehicles. There are a few market leaders in each of the four segments that make up India's automobile industry: two-wheelers, three-wheelers, passenger cars, and commercial vehicles. The domestic market is dominated by two-wheelers and cars. In terms of market size, the India passenger car market was estimated to be worth US\$ 32.70 billion in 2021, and it is anticipated to increase at a CAGR of over 9% from 2022 to 2027 to reach US\$ 54.84 billion. By 2025, it is predicted that India's electric vehicle (EV) market will be worth Rs. 50,000 crore (US\$ 7.09 billion).

The Government of India anticipates the vehicle sector to draw US\$ 8–10 billion in domestic and international investments by 2023, therefore there have been a lot of investments recently.

Between April 2000 and March 2022, the sector attracted equity inflows from foreign direct investors (FDI) of US\$32.84 billion, or 6% of all FDI in equities during that time. Speculation stream into EV new businesses in 2021 contacted an unsurpassed high, expanding almost 255% to arrive at Rs. 3,307 crore (US\$ 444 million). There is a need to set up legitimate charging foundation for EVs in India. To introduce electric vehicle supply hardware (EVSE)

framework for EVs, different public area firms, services and railroads have met up to make foundation, and to produce parts.

## II. OBJECTIVES

### 1. Understanding Stock Movement:

- Analyze how automobile company stocks listed in the NIFTY50 index fluctuate.
- Identify the main factors influencing these fluctuations, such as market trends, economic conditions, and company-specific factors.

### 2. Analyzing Stock Movement Patterns:

- Study quarterly and annual data to observe patterns or trends in stock prices for companies like Tata Motors, Maruti Suzuki, TVS Motor, MRF, and Ashok Leyland.
- Measure volatility and determine if there are consistent upward or downward trends over time.
- Examine the impact of quarterly results, seasonal trends, and economic indicators on stock prices.

### 3. Comparing Stock Movements Across Companies:

- Conduct a comparative analysis of stock price movements for the selected companies to see how each responds to similar industry or economic conditions.
- Highlight differences in performance and volatility among the companies, considering their financial health, market position, and resilience to external factors.

## III. LITERATURE REVIEW

(R, 1996) Inspects the patterns, and proof of India's capital market development. The creator has found that the securities exchange plays a critical part in funding long haul money to industry. The creator sees that during 1970-71 to 1990-91 the monetary reserve funds of family area in offers and debentures was exceptionally low, however since financial changes of 1991, speculation on offers and debentures are bit by bit expanding. Securities exchange development has changed homegrown monetary investment funds piece from bank stores to offers and debentures.

(Michel, 2001) Examine the modern development prospects that drive IPO stock execution. The creator has utilizing univariate test, multivariate relapse for the 7434-example information during 1982 to 2006 and found that modern development monetarily affects long-run IPO stock execution. The creator examines the three speculations data, evenness risk, under or eruption and uniqueness of assessment. The data balance or hazard speculation might be working at the short run cost impact; however, it can't make sense of the long-run proof.

(Gopalakrishnan M Gopalakrishnan M. Muthu, 2007) Considering that it is the biggest and quickest developing business on the planet, the Indian auto industry is one of the most sought-after enterprises by financial backers. Numerous automakers have started to make interests in this field. The value of the car area is quite possibly of the most worthwhile stock recorded on the Indian stock trade. protections.

## IV. RESEARCH METHODOLOGY

The research methodology includes a comprehensive literature review and analysis of industry reports, financial databases, and historical valuation data. Key financial metrics and statements are examined, with correlations assessed using statistical techniques.

## V. STATISTICAL TOOLS

Statistical tools Standard Deviation, Mean, Average and Softwares such as Excel.

## VI. SAMPLING

The study will include a total of 5 Indian Automobile companies in stock market.

**VII. DATA ANALYSIS AND INTERPRETATION**

1. Table showing the yearly results of Stock Movement of ASHOKLEY company for the period of 1st January to 31st December 2021.

Sl.no	Period	Average Closing Stock Price	Std. Dev	Mean	% Change in Stock Movement
1	January-March	120.92	1.10	98.47	5.37
2	April-June	118.97	1.10	91.57	(7.00)
3	July-September	126.01	1.85	99.07	8.91
4	October-December	133.67	2.70	116.56	17.65

Interpretation: From the above chart it can be observed that the returns on the stock of the ASHOKLYE company is said to be negative in the second half quarter period of time due to the pandemic situation (COVID-19) which the whole world was facing during that time.

2. Table showing the 1 Year results of Stock Movement of MARUTHI SUZUKI Company for the period 1st January to 31st December 2021.

Sl.no	Period	Average Closing Stock Price	Std. Dev	Mean	% Change in Stock Movement
1	January-March	99.82	1.84	99.10	
2	April-June	100.16	1.53	99.37	0.27
3	July-September	99.97	1.31	98.37	(1.00)
4	October-December	100.03	1.94	100.98	2.65

Interpretation: From the above chart it can be observed that the investors of MARUUTHI SUZUKI company are not getting a good return in this year. due to the pandemic situation (COVID-19) which the whole world was facing during that time. Fundamentals of all the automobile company stocks are not strong, as per the financial statement of the Year 2021.

3. Table showing the 1 Year results of Stock Movement of MRF Company for the period of 1st January to 31st December 2021.

Sl. no	Period	Average Closing Stock Price	Std. Dev	Mean	% Change in Stock Movement
1	January-March	81775	96.74	97.84	2.5
2	April-June	80806	37.49	99.20	1.39
3	July-September	79949	17.0.	99.33	0.31
4	October-December	72265	59.0	94.86	(4.50)

Interpretation: From the above chart it can be observed that the investors of MRF company is getting more of negative returns in fourth quarter year. due to the pandemic situation (COVID- 19) which the whole world was facing during that time. Before investing in to stock market the investor needs to see the past performance of the company and need to take the decisions.

4. Table showing the 1 Year results of Stock Movement of TVS Company for the period of 1st January to 31st December 2021.

Sl. no	Period	Average Closing Stock Price	Std.Dev	Mean	% Change in Stock Movement
1	January-March	576.1	48.60	583.05	92.71315
2	April-June	605.49	33.39	618.5	6.08
3	July-September	559.38	31.19	547.45	(11.48)
4	October-December	647.71	57.80	625	14.16

Interpretation: From the above chart it can be observed that the investors of TVS company need to see that they are getting a negative return in the third quarter year due to the pandemic situation (COVID-19) which the whole world was facing during that time. The investor needs to calculate the capability that he is willing to take the risk.

5. Table showing the 1 Year results of Stock Movement of TATA MOTORS Company for the period of 1st January to 31st December 2021.

Sl. no	Period	Average Closing Stock Price	Std.Dev	Mean	% Change in Stock Movement
1	January-March	293.57	41.65	299.8	75.8
2	April-June	318.17	18.78	337.6	12.60
3	July-September	302.94	15.18	331.35	(1.85)
4	October-December	471.52	44.11	480.4	44.98

Interpretation: From the above chart it can be observed that the investors of TATA MOTORS negative returns more in the third quarter period of time due to the pandemic situation (COVID-19) which the whole world was facing during that time.

6. Table showing the 1 Year results of Stock Movement of the selected automobile industries

Sl.no	Period	Average Closing Stock Price	Std. Dev	Mean	% Change in Stock Movement
1	ASHOKLEY	124.89	0.65	115.56	115.56
2	MARUTHI SUZUKI	100.14	0.25	99.98	99.98
3	MRF	78698.5	2.95	93.86	99.89
4	TVS	597.91	10.97	624	87.11
5	TATA MOTORS	346.55	13.04	479.4	109.99

Interpretation: From the above chart it can be observed that the investors of TATA MOTORS company are getting more of the returns compared to the other selected few companies in which it can see that the company is facing more of standard deviation and say that the stocks which is facing more of standard deviation can expect more of returns in the market.

## VIII. FINDINGS

### 1. Stock Volatility:

The stock prices of the selected NIFTY50 automobile companies (TVS Motor, MRF, Ashok Leyland, Maruti Suzuki, and Tata Motors) exhibited notable volatility over the year. This volatility was driven by factors such as quarterly results, industry trends, and macroeconomic conditions.

**2. Impact of COVID-19:**

o The COVID-19 pandemic significantly impacted the automotive sector, causing reduced demand, increased operational costs, and supply chain disruptions. These effects contributed to the fluctuations and uncertainty in stock prices.

**3. Market Trends and Stock Price Fluctuations:**

o Data analysis showed that stock movements correlated with quarterly earnings announcements and broader industry trends, indicating that these stocks are highly sensitive to both company performance and external economic factors.

**4. Annual and Quarterly Performance:**

o While there was high volatility across both quarterly and annual performance, the mean stock prices suggested an upward trend for several companies, pointing to general growth within the sector despite market instability.

**5. Investor Recommendations:**

o The study concludes that investors should carefully assess stock movement trends, the economic environment, and sector-specific risks before making investment decisions in the automobile sector.

**IX. CONCLUSION**

It is been observed that the select few automobile companies are giving more of negative returns during the period after the month of April this is mainly due to the sudden pandemic situation which was faced by the people all over the world (COVID-19). This is one of the main reasons to see that there were more negatives returns after the month of April and the market had fallen for a certain period of time and not only the Automobile sectors other than the Pharmaceutical company's majority of the company had see down fall in the returns after the starting of pandemic in the year 2021.

**X. LIMITATIONS**

- There are more number of Automobile companies listed in NIFTY50, This study is limited to only selected 5 Automobile companies.
- This study is done on short period of time duration.
- The study has conducted by using secondary data.

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