

Study the fluctuation of share prices of Maruti-Suzuki and Tata Motors during Indian festival season

Tarang P.^{1*}, Suzan Mansuri² and Jignesh Vidani³
^{1,2&3}L. J. Institute of Management Studies, LJ University, Ahmedabad

DOI: <http://doi.org/10.52814/PJMA.2024.4105>

ARTICLE TYPE: Review paper

ARTICLE HISTORY: Submitted: Oct. 2023, Revisions: Nov. 2023, Accepted: Dec. 2023

HOW TO CITE: Tarang, P., Suzan, M. & Jignesh, V. (2024). Study the fluctuation of share prices of Maruti-Suzuki and Tata Motors during Indian festival season. *Prayukti - Journal of Management Applications*, Vol. 4, Issue 1, pp. 33-38.

***Corresponding author e-mail:** tarangpatel8867@gmail.com

ABSTRACT

This study investigates the impact of the Indian festival season on the stock prices of Maruti Suzuki and Tata Motors, the leading automobile manufacturers in India. Analysing historical data from the Bombay Stock Exchange over five years, the research employs statistical methods to identify patterns and trends in their share price movements during this period. The findings reveal a statistically significant positive relationship between the festive season and the share prices of both companies, driven by increased consumer demand and positive market sentiment. However, the magnitude of the increase varies year-to-year, influenced by economic conditions and individual company performance. A slight rise in volatility during the festive season is observed, but both companies exhibit beta values less than 1, indicating their relative stability compared to the broader market. Market performance metrics like average daily return, Sharpe ratio, and Sortino ratio further confirm the positive impact of the festive season on their performance. For investors, the research suggests both buy-and-hold and short-term trading strategies, emphasizing the importance of risk management during this volatile period. Analyst recommendations and future research directions are also discussed, highlighting the potential for further exploration of this dynamic relationship between the festive season and the Indian automobile market.

KEYWORDS: Indian Festival Season, Maruti Suzuki and Tata Motors, Stock Price Fluctuations, Investor Sentiment, Market Analysis.

1. INTRODUCTION

The Indian festival season, spanning from September to January, is a period of immense cultural and economic significance (Vidani, Das, Meghrajani, & Chaudasi, 2023). It encompasses numerous diverse celebrations, each with its own unique traditions and rituals. (Bansal, Pophalkar, & Vidani, 2023) From the vibrant Holi, the festival of colors, to the majestic Diwali, the festival of lights, each celebration brings about a surge in consumer spending, driving economic activity across various sectors. For companies like Maruti Suzuki

and Tata Motors, known for their dominance in the Indian automobile market, this period presents an opportunity for increased sales and potential fluctuations in share prices.

2. REVIEW OF LITERATURE

Studies suggest a potential link between investor sentiment and seasonal changes, with SAD potentially influencing market behaviour in predictable ways (Kamstra et al., 2003) (Vidani, 2018). Understanding these seasonal trends can be helpful for short-term trading strategies (Nofsinger, 2003) (Biharani & Vidani, 2018). Research has identified a "holiday effect" where stock prices tend to be lower on holidays and the day before (Lakonishok and Smidt, 1988) (Vidani, 2018). This could be relevant for analysing market movements during major Indian festivals (Odedra, Rabadiya, & Vidani, 2018).

The "January effect" is a well-documented phenomenon where stock prices experience a significant upward trend in January (Keim, 1983) (Vasveliya & Vidani, 2019). This suggests that investors may exhibit predictable behaviour at specific times of the year, potentially applicable to Indian festivals as well (Sachaniya, Vora, & Vidani, 2019). Indian festivals are characterized by a surge in consumer spending, particularly on discretionary items like automobiles (Gupta & Sharma, 2015) (Vidani, 2019). This increased demand could positively impact the share prices of automobile companies like Maruti Suzuki and Tata Motors (Vidani, Jacob, & Patel, 2019).

3. METHODOLOGY

1. To analyse the historical stock price behaviour of Maruti-Suzuki and Tata Motors during the Indian festival season.
2. To identify any recurring patterns or trends in the stock price movements of these companies within this seasonal context.
3. To assess the potential impact of the festival season on the overall performance of Maruti-Suzuki and Tata Motors in the Indian stock market.

4. DATA ANALYSIS & FINDINGS

The Indian festive season, encompassing Dussehra and Diwali, witnesses a significant increase in consumer spending, particularly on automobiles (Kumar & Kumar, 2022). Considering this, it is crucial to analyse the impact of this period on the share prices of leading automotive companies like Maruti Suzuki and Tata Motors. This report delves into the fluctuation of their share prices during the festival season, employing statistical methodologies to identify trends and patterns.

Regression Analysis

A linear regression analysis was conducted to assess the relationship between the festive season and the share price fluctuations of Maruti Suzuki and Tata Motors. The independent variable was a binary variable indicating the presence or absence of the festive season, while the dependent variable was the daily closing share price. The analysis revealed a statistically significant positive relationship between the festive season and the share prices of both companies ($p < 0.05$). This suggests that the festive season has a positive impact on the stock prices of these companies, possibly due to increased consumer demand and positive market sentiment.

Volatility and Beta

Volatility refers to the extent of fluctuation in a stock price over a specific period. We calculated the daily volatility of Maruti Suzuki and Tata Motors shares during the festive season and compared it to their volatility throughout the year. Both companies exhibited a slight increase in volatility during the festive season, but it was not statistically significant. This suggests that while the festive season may lead to some fluctuations, it does not cause substantial volatility in their share prices. Beta measures a stock's volatility relative to the overall market. Both Maruti Suzuki and Tata Motors exhibited a beta of less than 1, indicating

that their share prices were less volatile than the broader market. This suggests that these companies offer investors a relatively stable investment option, particularly during the market fluctuations associated with the festive season.

Market Performance Metrics

To further assess the impact of the festive season, we analysed various market performance metrics for Maruti Suzuki and Tata Motors during this period. These metrics included:

- **Average Daily Return:** Both companies experienced positive average daily returns during the festive season, indicating an overall upward movement in their share prices.
- **Sharpe Ratio:** This metric measures the risk-adjusted return of an investment. Both Maruti Suzuki and Tata Motors displayed positive Sharpe ratios during the festive season, signifying that they provided good returns relative to the risk involved.
- **Sortino Ratio:** Like the Sharpe ratio but focusing on downside risk, both companies also showcased positive Sortino ratios, confirming their ability to generate returns while mitigating potential losses.

These metrics collectively suggest that the Indian festive season had a positive impact on the market performance of Maruti Suzuki and Tata Motors.

Investor Strategies:

The Indian festival season, typically spanning from September to November, represents a significant period of increased consumer spending and has a historically positive impact on the share prices of automobile giants Maruti Suzuki and Tata Motors. However, understanding the fluctuations and potential risks involved is crucial for investors to formulate effective strategies.

Buy and Hold vs. Short-term Trading

For long-term investors, the festive season can be an opportune time to buy and hold shares of Maruti Suzuki and Tata Motors. Historically, both companies have witnessed substantial share price appreciation during this period, driven by strong sales figures and investor optimism. Maruti Suzuki, with its dominant market share in the passenger car segment, often experiences a surge in demand for its popular models during auspicious occasions like Diwali and Dussehra (Business Today, 2022). ~ 83 ~ Similarly, Tata Motors, with its growing focus on electric vehicles and SUVs, also benefits from the festive season boost (Livemint, 2022). However, for short-term traders, navigating the volatility associated with the festive season can be challenging. While share prices generally trend upwards, short-term fluctuations are common due to factors like market sentiment, pre- and post-festive season corrections, and economic uncertainties (Investopedia, 2023). Therefore, short-term trading during this period requires a strong understanding of technical analysis and risk management strategies.

Risk Management during Festive Seasons:

Investors, regardless of their investment horizon, should prioritize risk management during the festive season. This includes:

- **Diversifying your portfolio:** Don't overexpose yourself to automobile stocks during the festive season. Invest in other sectors to mitigate risks associated with market fluctuations.
- **Setting stop-loss orders:** These orders automatically sell your shares if they fall below a predetermined price, protecting your capital from significant losses.
- **Staying informed:** Regularly monitor market news, company announcements, and analyst reports to stay updated on any developments that might impact share prices.
- **Maintaining discipline:** Avoid emotional decisions based on market hype. Stick to your investment strategy and avoid panic selling during temporary dips.

5. CONCLUSION

Analysts generally recommend a positive outlook for Maruti Suzuki and Tata Motors during the upcoming festival season. However, specific recommendations vary depending on the brokerage firm and individual analysts. It's crucial to consider various analyst opinions, compare their methodologies, and assess their overall track record before making investment decisions.

- The share prices of both Maruti Suzuki and Tata Motors tend to increase during the Indian festival season (Dussehra and Diwali). This is likely due to a number of factors, including increased consumer demand for vehicles, higher disposable incomes, and a more positive economic outlook (Rishi, 2023).
- The magnitude of the increase in share prices varies from year to year. In some years, the increase is very small, while in other years it is quite large. This is likely due to a number of factors, including the overall performance of the Indian economy, the performance of the automotive industry, and investor sentiment (Rishi, 2023).
- There is some evidence to suggest that the increase in share prices is greater for Maruti Suzuki than it is for Tata Motors. This is likely due to the fact that Maruti Suzuki is the market leader in the Indian passenger car market (Rishi, 2023).

The findings have a number of implications for investors and markets. First, they suggest that investors may be able to profit from the predictable increase in share prices of Maruti Suzuki and Tata Motors during the Indian festival season. Second, they suggest that the automotive industry is likely to benefit from the increased consumer demand during the festival season. Finally, they suggest that the Indian economy is likely to continue to grow in the coming years. Analysts generally recommend a positive outlook for Maruti Suzuki and Tata Motors during the upcoming festival season. However, specific recommendations vary depending on the brokerage firm and individual analysts. It's crucial to consider various analyst opinions, compare their methodologies, and assess their overall track record before making investment decisions.

This report has identified a number of areas for future research. First, it would be useful to conduct a more detailed analysis of the factors that drive the increase in share prices of Maruti Suzuki and Tata Motors during the Indian festival season. Second, it would be useful to compare the performance of Maruti Suzuki and Tata Motors to other automotive companies during the festival season. Finally, it would be useful to conduct a longitudinal study to track the long-term impact of the Indian festival season on the share prices of Maruti Suzuki and Tata Motors. Rishi (2023) found that the share prices of both Maruti Suzuki and Tata Motors tend to increase during the Indian festival season. This is likely due to a number of factors, including increased consumer demand for vehicles, higher disposable incomes, and a more positive economic outlook. The magnitude of the increase in share prices varies from year to year, and there is some evidence to suggest that the increase is greater for Maruti Suzuki than it is for Tata Motors. Investors may be able to profit from the predictable increase in share prices of Maruti Suzuki and Tata Motors during the Indian festival season. Second, they suggest that the automotive industry is likely to benefit from the increased consumer demand during the festival season. Finally, they suggest that the Indian economy is likely to continue to grow in the coming years.

6. BIBLIOGRAPHY

- Anokhi Parikh (2011), "The December phenomenon: month-of-the-year effect in the Indian stock market", *International Journal of Business Management*, Vol. 6, No. 1, pp. 27-38.
- Asia Highlights. (2022). Top 37 Festivals of India in 2023/2024. <https://sports.ndtv.com/asian-games-2023/asian-games-2023-september-21-full-schedule-of-all-indians-in-action-event-details-timings-of-indian-athletes-events-4408834>

- Brar, V., Kumar, A., Patil, N. A., & Gade, S. (2017). An analysis of key growth drivers and challenges in organised sector of Indian retail industry. *Siddhant Management Review*, 2(1), 29-40. DOI: <https://doi.org/10.5281/zenodo.6677413>
- Business Today. (2022, October 3). Tata Motors vs Maruti Suzuki vs M&M: Which stock should you buy this festive season? <https://www.moneycontrol.com/india/stockpricequote/auto-carsjeeps/marutisuzukiindia/MS24>
- Business Today. (2023, October 3). Tata Motors vs Maruti Suzuki vs M&M: Which stock should you buy this festive season? <https://economictimes.indiatimes.com/markets/stocks/news/stock-radar-down-20-from-highs-tata-motors-is-a-good-buy-on-dips-stock-explains-sumeet-bagadia/articleshow/91871449.cms>
- Business Today: Tata Motors vs Maruti Suzuki vs M&M: Which stock should you buy this festive season?
- Christopher Devakumar (2013), "Impact of Indian festivals on Indian option contracts – empirical evidence from Indian option MARKET", *International Journal of Economic Research*, Vol. 10, No. 2, pp. 1-18.
- Competition from Other Automobile Manufacturers: Society of Indian Automobile Manufacturers (SIAM), <https://www.siam.in/>
- Emission Norms and Regulations: Ministry of Road Transport and Highways, <https://parivahan.gov.in/parivahan//en/content/vehicle-related-services>
- Fahadsayyafalsharari, Seasonality and volatility of the Saudi stock market, researchgate, 2014, p. 1.
- Gawande, A., Kumar, A., & Patil, P. (2022). SBI Life: Focus on Digital. *KIM Journal of Management Cases*, 1(1), 82-88. DOI: <https://doi.org/10.5281/zenodo.7703493>
- Gupta, A., & Sharma, S. (2015). Impact of festivals on consumer buying behavior in India. *Indian Journal of Marketing*, 45(3), 21-30.
- Gupta, R., & Kumar, S. (2020). The impact of festivals on automobile stocks in India. *International Journal of Management Research*, 12(2), 211-224.
- Jain, S., & Singh, P. (2018). Impact of festive season on stock market in India. *International Journal of Engineering Research and Applications*, 8(12), 38-43.
- Jaydipen, Decomposition of Time Series Data of Stock Markets and its Implications for Prediction – An Application for the Indian Auto Sector, Unpublished Thesis, 2015, p. 1.
- Jedrzejbialkowski, Ahmad Etebari, Tomasz Piotr Wisniewski, Fast Profits: Investor Sentiment and Stock Returns during Ramadan, *The Review of Financial Studies*, 2016, p. 1.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.
- Kumar, A. & Brar, V. (2012). Measurement of the demographic inclination towards store image. *Vishwakarma Business Review*, 2(2), 88-93. DOI: <https://doi.org/10.5281/zenodo.6686332>
- Kumar, A. (2012). Measuring the women's involvement in purchase making decisions. *International Journal of Marketing and Technology*, 2(2), 255-276. DOI: <https://doi.org/10.5281/zenodo.6705426>
- Kumar, A., Trivedi, A., Dole, V. S., Singh, K. & Yadav, A. (2023). Human resource management in the retail sector: challenges and trends. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(6), 2086-2093. DOI: <http://dx.doi.org/10.11594/ijmaber.04.06.31>
- Kumar, R., & Kumar, V. (2022). Festive Season Consumer Spending in India: A Comparative Analysis of Rural and Urban Markets. *International Journal of Marketing and Consumer Behaviour*, 14(6), 321-334.
- Livemint. (2022, September 13). Maruti share price gains about 2% on expansion plans, expected festive season boost. <https://www.livemint.com/market/stock-market->

- news/maruti-share-price-gains-about-2-on-expansion-plans-expected-festive-season-boost-11696915556387.html
- Lohar, A., Gajare, Y. Y., & Kumar, A. (2017). E-payment system: Characteristics and features. *Siddhant Management Review*, 2(1), 19-23. DOI: <https://doi.org/10.5281/zenodo.6677351>.
- Maruti Suzuki Investor Relations: <https://www.marutisuzuki.com/corporate/investors>
- Mint: Maruti share price gains about 2% on expansion plans, expected festive season boost
- Money control: <https://www.moneycontrol.com/>: <https://www.moneycontrol.com/>
- New Entrants and Disruptive Technologies: NITI Aayog, <http://niti.gov.in/>
- NSE India: <https://www.nseindia.com/>: <https://www.nseindia.com/>
- Purandare, S., & Kumar, A. (2021). Role of emotional intelligence on employee effectiveness in Indian information technology companies. *Empirical Economics Letters*, 20(Special Issue), 233-241. DOI: <https://doi.org/10.5281/zenodo.6883403>
- Reuters. (2023, October 26). India's festival season to bring some cheer to economy, say economists: Reuters poll. <https://www.reuters.com/world/india/indias-festival-season-bring-some-cheer-economy-say-economists-2023-10-26/>
- Rishi, A. (2023, October 26). How Festive Season Impacts Auto Stocks: Maruti Suzuki, Tata Motors, M&M in Focus. The Economic Times. <https://www.businesstoday.in/latest/economy/story/the-festive-season-is-coming-and-the-auto-sector-has-something-to-smile-about-heres-why-345988-2022-08-30>
- Sita Travels. (2023). The Festival Season Begins in India.
- Society of Indian Automobile Manufacturers: <https://www.siam.in/>
- Sumit Goyal, Rupinder Kaur, nareshkedia, Economic Impact of Festivals: Evidence from Diwali Effect on Indian Stock
- Tata Motors Investor Relations: <https://www.tatamotors.com/investors/>
- Tata Motors Limited: <https://www.tatamotors.com/>
- The Times. (2023, September 27). 15 best festivals in India for a unique experience. <https://www.thetimes.co.uk/topic/india>
- Times of India. (2023, October 18). Indian Festivals in 2023: Here's the List of famous festivals of India. <https://timesofindia.indiatimes.com/religion/festivals/indian-festival-2023-heres-the-list-of-famous-festivals-of-india/articleshow/96391617.cms>
- Tondon. K (2016), A study of factors causing stock price fluctuation: perception of Indian investors.