A STUDY ON THE RELATIONSHIP BETWEEN QUARTERLY RESULTS AND MOVEMENTS IN SHARE PRICES IN SELECTED COMPANIES IN THE AUTOMOBILE INDUSTRY

Project Report

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Under the guidance of

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In partial fulfillment of requirement for award of the degree of

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ST. TERESA'S COLLEGE (AUTONOMOUS), ERNAKULAM
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CERTIFICATE

This is to certify that the project report titled **'A STUDY ON THE RELATIONSHIP BETWEEN QUARTERLY RESULTS AND MOVEMENTS IN SHARE PRICE IN SELECTED COMPANIES IN THE AUTOMOBILE INDUSTRY'** submitted by **SANDRA ANN BENJAMIN, SHANNON MICHAEL AND SONA FRANCIS** towards partial fulfillment of the requirements for the award of degree of Bachelor of Commerce is a record of bonafide work carried out by them during the academic year 2022-23.

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Date: 31 March 2023

DECLARATION

We, Sandra Ann Benjamin, Shannon Michael, Sona Francis, do hereby declare that this dissertation titled, **'A STUDY ON THE RELATIONSHIP BETWEEN QUARTERLY RESULTS AND MOVEMENT IN SHARE PRICE IN SELECTED COMPANIES IN THE AUTOMOBILE INDUSTRY'** has been prepared by us under the guidance of **Dr. Jency Treesa**, Assistant Professor. Department of Commerce, St. Teresa's College, Ernakulam.

We also declare that this dissertation has not been submitted by us fully or partly for the award of any Degree, Diploma, Title or Recognition before.

Place; Ernakulam
Date: 31 March 2023

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CHAPTER 1

INTRODUCTION

1.1. Introduction

The stock price is the maximum price that can be offered for the stock or the lowest price at which it can be purchased. Nobody can foresee or assume what will happen in the stock market, where you may make a big profit or lose money if it crashes.

The supply and demand for shares, which are driven by investors looking to purchase or sell shares, affect stock prices. Despite the fact that these transactions affect stock values, it is impossible to forecast how they will change.

A company's value may be well represented by its book value. A stock may be undervalued if its book value per share is higher than its market value per share. A stock may be overpriced or overvalued if the book value per share is less than the market value per share. A company's share price is decided by market supply and demand once it becomes public and its shares begin trading on a stock exchange. The price will rise if there is a large demand for its shares.

A company's quarterly results are a type of financial statement that are released every three months, for instance April-June, July-September. An income statement, balance sheet, cash flow statement, and comparative figures for the prior quarter and year are all included in a quarterly report. A discussion and analysis of the company's financial state, disclosure of risk factors that could lower its value, and a discussion of issues put to a vote by shareholders during the quarter are also included. Investors can forecast future earnings potential with the use of a quarterly report, which is closely tied to share price.

Annual results are a report that includes the profit-and-loss account, the balance sheet, and specifics of the previous year's activity. It is given by the directors of a company to its shareholders each year. It is an introduction by the CEO, an overview of the company's financial status and results, and a synopsis of its actions over the preceding 12 months. The use of annual results is complicated because they include data of the whole financial year. Data analysis using annual findings takes longer than data analysis using quarterly outcomes. Finding the correlation between the anticipated share price and the two years annual results is substantially more difficult. When only three months' worth of data are used for quarterly results, it is quite simple to compare them to share price. Using quarterly findings, many data analysis techniques can be used, including correlation analysis, ratio analysis, trend analysis and comparative analysis. As compared to annual results quarterly results is more preferable to determine the movement in share price. More accurate results can be obtained while using quarterly results.

The factors that have an impact on the share price include press releases about earnings, profits, and projected future earnings, the declaration of dividends, a new product launch or a product

recall, securing a new and significant contract, employee layoffs, anticipated takeover and merger, accounting errors or scandals, inflation, deflation, economic and political shocks, changes in economic policy and interest rates.

1.2. Significance

The scope of this study is on analyzing the quarterly results, which are useful for investors in making investment decisions and for businesses in determining whether there is a correlation between share price and quarterly results. The company's quarterly report significantly affects share price, either positively or negatively. This will also assist investors in choosing which company to invest in in order to make a profit. Investors can get a pulse on public corporations with the aid of quarterly reports. Investors can gain deep insight into the performance and growth of a business by comparing the quarterly information to the information for the same quarter from the prior year. Furthermore, since future earnings potential is closely tied to a company's share price, quarterly reports assist investors in making financial projections. It helps an individual to buy and sell the assets to reach their desired portfolio composition.

1.3. Objectives

1. To understand the price fluctuation in the shares of selected companies during the pre and post-result period.
2. To find out the relationship between growth in results of the company and the changes in share price.
3. To under the reasons for the deviations from the normal relationship between results and share price, if any.

1.4. Research Questions

1. What will be the impact of quarterly results in the current financial position of companies in the automobile industry?
2. What are the factors in quarterly results that influences share price?
3. How will publishing quarterly results and the movement in share price affect the stakeholders?

1.5. Scope of the study

The study will be conducted for selected Automobile companies. The study will be undertaken for the eight quarters starting from the quarter ending December 2020 to the quarter ending September 2022. It aims to study the impact of quarterly results on share price of Automobile Companies.

This will help us analyze various items that have caused the movement in share price. The scope of financial performance is very wide and it is based on accounting information and published quarterly results.

1.6. Research Methodology

Research Design

The overall approach taken to carry out a research project is stated in the research design. The case study method is used in this research study. A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. It is an established research design that is used extensively in a wide variety of disciplines, particularly in the social sciences.

Data collection

This study is based on Secondary data. The published quarterly results are collected from the official websites of the company. Data relating to the share price over the eight quarters, the shareholding pattern of the companies, etc were collected from various stock analysis websites.

Tools used for analysis and data presentation

Correlation, comparative analysis, ratio analysis, trend analysis, and graphical analysis are the primary methods used to analyze data relating to the quarterly results and share prices of the selected companies. Data analysis and comparison are done using graphs and charts. The study was conducted using line charts, bar diagrams, column charts, etc. Correlation between the results and share price were established using Karl Pearson's Coefficient of Correlation method.

Duration of the Study

The study was conducted for the financial years 2020-21, 2021-22 and 2022-23. The following eight quarters were selected.

Financial Year 2020-21:
Quarter III (1st October 2020 to 31st December 2020)
Quarter IV (1st January 2021 to 31st March 2021)

Financial Year 2021-22:
Quarter I (1st April 2021 to 30th June 2021)
Quarter II (1st July 2021 to 30th September 2021)
Quarter III (1st October 2021 to 31st December 2021)
Quarter IV (1st January 2022 to 31st March 2022)

Financial Year 2022-23:
Quarter I (1st April 2022 to 30th June 2022)
Quarter II (1st July 2022 to 30th September 2022)

The population of the study

The population of the study consists of companies in the automobile industry in India.

Sampling method:

Criterion sampling involves the selection of a sample based on some pre-established criteria. This criterion is of importance to the research in the most significant way. This kind of sampling helps the researchers to study very specific or narrow criteria and understand their implications. The market share, market capitalization and turnover of the companies were the criterion used.

Sample Size

From the total population of the study, that is from all the automobile companies in India, a sample of five automobile companies were chosen for the study based on the market share, market capitalization and turnover. The following companies were selected:

1. Maruti Suzuki India Ltd.
2. Hyundai Motors India Ltd.
3. Mahindra & Mahindra Ltd.
4. Tata Motors Ltd.
5. Honda Cars India Ltd

COMPANIES	Market Share (%)	Market Capitalization (in crores)	Turnover (in crores)
1. Maruti Suzuki	51.22	2,22,358	86,068
2. Hyundai Motors India Ltd	16.14	1,44,088	90,171
3. Mahindra & Mahindra Ltd	7.53	65,380	1,03,205
4. Tata Motors Ltd	6.85	58,119	58,121
5. Honda Cars India Ltd	5.44	2,042	1,257

From the five top automobile companies, two companies, namely Maruti Suzuki and Tata Motors Ltd were selected for data analysis and interpretation. Maruti Suzuki was selected because it is the largest automotive manufacturing company in India, thus having the highest share price among

the other companies. Tata Motors Ltd was selected because the company was incurring loss for the last seven quarters, which facilitates the study of the relationship between the quarterly results and share price of a company incurring loss.

1.7. Limitations of the study

- The analysis is mainly on the basis of secondary data. Primary data is difficult to access in the case of this study.
- The study solely looked at how quarterly results affected share prices, not turnover, transaction volume, or other factors.
- The study was confined to only the automobile industry.
- The study involves data from the years where the economy was hit by the pandemic.

1.8. Keywords

1. Share Price - A share price is the cost of one equity share among many saleable shares of a company. It is the highest price someone is willing to pay for the stock or the lowest price at which it can be purchased.

2. Quarterly Results - The quarterly results are the results that businesses produce at the end of each of the three months of their financial year which include the information related to financial matters. It is an unaudited financial statement summary that also compares the results from the prior quarter and year.

3. Correlation Analysis - Correlation analysis, also known as bi-variate correlation analysis, is primarily concerned with establishing whether a relationship between variables exists before figuring out its strength and course of action.

4. Comparative Analysis - The comparison of two or more procedures, papers, data sets, or other items is referred to as comparative analysis. Comparative analysis techniques include pattern analysis, filtering, and decision-tree analytics.

5. Ratio Analysis - Ratio analysis is a mathematical technique for analyzing a company's financial documents, such as the balance sheet and income statement, to gather knowledge about its liquidity, operational effectiveness, and profitability.

6. Trend Analysis - Trend analysis is an aspect of technical analysis for making predictions based on historical data. It indicates the idea that focus on the past data which gives a trader an idea of future data.

1.9. Chapterisation

Chapter 1 - Introduction: This chapter deals with the introduction of the study, its significance, scope, objectives, limitations and the methodology used in the current study.

Chapter 2 - Literature Review: This chapter consists of the summaries of the prevailing literatures relating to our study. These published research papers were reviewed in order to understand the nature of the study.

Chapter 3 - Theoretical Framework: This chapter gives an overview about the study. It give the foundation for developing and supporting the current study. This chapter is important to explain the analysis and interpretations in the later chapters.

Chapter 4 - Data Analysis and Interpretation: The data collected from various sources are sorted and analyzed in this chapter. The tools used for analysis of data help in giving a clear picture about the study and thus helping in interpretation of the same.

Chapter 5 - Findings and Conclusion: This is the final chapter where a summary of the finding and the conclusion to the study are stated.

CHAPTER 2
REVIEW OF LITERATURE

2.1. Literature Review

C. Babu & R. Kasilingam (2013) has a common goal to determine how quarterly results affected the values of securities. The prices of securities were compared before and after the companies published their quarterly results using the Independent sample T-test. The findings of the study indicate that there was a price increase following the release of the results, and that this price increase was mostly caused by market conditions rather than the release of the quarterly results. The growth in earnings reported in the quarterly reports did not account for changes in share prices.

William R. Baber & Sok-Hyon Kang (2001) has done a study that indicates the effects of earnings management by examining stock market responses to on-target quarterly earnings announcements between 1993 and 1999. The study also discovered that the degree to which firms appear to manage earnings upward varies inversely with returns during the earnings disclosure period. Overall, the data gathered during the research points to the fact that market participants discount managed earnings components when interpreting quarterly earnings disclosures and are conscious of incentives to manage earnings to meet expectations. This paper emphasizes the need for caution when using published consensus analyst predictions when examining the issue of stock splits.

Kenneth S. Lorek & Allen W. Bathke Jr. (1984) has done research which was based on the time-series behavior of quarterly earnings data and has identified many different seasonal autoregressive-integrated-moving- average (ARIMA) models that fit for all firms. This paper was more concerned with the fit of these models for a sample of firms which do not exhibit seasonal behavior.

Paul M. Healy & James M. Wahlen (1999) specifies in this article the scholarly research on earnings management and its relevance for regulators and those who set accounting standards is evaluated. The review is around issues that are of relevance to those who set standards. Researchers examine empirical data in particular to determine whether specific accruals are used to manage earnings, the scope and frequency of any such management, and whether such management has an impact on the allocation of resources in the economy. The assessment also points to other areas where profits management research could be conducted in the future.

Naresh Kedia & Anil Vashisht (2018) has determined the correlation between the share price and Sensex which were analyzed to understand the real effect of quarterly results on the share prices. The returns from the share prices and the returns from the Sensex were calculated to find out the nature of returns. Secondary data for the study were collected from the BSE Website. To determine whether there was a significant change between the share prices before and after the announcement of the quarterly results, the independent sample T-test was used. When comparing share prices before and after the announcement of the quarterly results, 10 out of 13 companies

displayed a substantial difference. All the companies, with the exception of Bajaj Autos, had unusual share prices and Sensex returns. The effects of quarterly result announcements on share prices were shown by nine different corporations. Two businesses experienced an impact as a result of Sensex volatility, and two more as a result of other macroeconomic reasons. The study thus concludes that the companies' share prices were affected by the announcement of the quarterly results.

Santu Das, J K Pattanayak & Pramod Pathak (2008) has examined the return behavior of a sample of firms experiencing a common type of event like an earnings announcement, stock split, issue of new debt or equity, merger and acquisition and so on. This study was conducted to assess the significance of economic events on the market value of firms. The average stock price effect has been investigated using data on daily returns. The impact of event clustering has been taken into account while analyzing the impact of announcements. The study also looks at how share values move upward in relation to "good announcement" and "bad announcement."

Iqbal & T. Mallikarjunappa (2009) evaluates stock market reaction to quarterly earnings announcements taking in view the Quarter III of financial year 2001-02 (Oct 2001 – Dec 2001). This study was based on 152 companies which had a minimum of 20% foreign holdings. The companies have been separated into categories including overall portfolios, good news, and bad news. The event study methodology, t tests, runs tests, sign tests, raw returns, and log returns have all been employed. AAR and CAAR conduct is analyzed over the 30 days prior to and the 31 days after the release of quarterly earnings. The study's findings showed that the stock market's response to earnings announcements is delayed.

D. Lazar & Pramod G. (2010) indicates that the investors assess the future performance of the companies based on corporate actions. Investors buy or sell securities based on this assessment. Variations in share prices result as a consequence. This study was aimed to determine whether or not business actions affect share price. In this study 80 companies listed in the BSE were considered and twelve corporate actions were identified. The impact of corporate actions on share prices was examined using the Wilcoxon Matched Pairs Test. All businesses need to execute corporate actions. Corporate actions are essential to an organization's existence, business plans, business practices, and ability to turn a profit. It is a thorough resource for comprehending a crucial aspect of operational processing.

M. Selvam, M. Babu, G. Indhumathi & N. Kogila (2010) has made an event study which focuses on important research tools in economics and finance to measure the effects of an economic event like quarterly earnings, merger and acquisition, dividend issue, bonus issue and so on, on the value of the firm. These economic events may or may not result in change in the quantum of shares, but it does influence the total worth of the firm. The impact can be evaluated by looking at the cost of event-related security. The prices of securities on the capital market are affected by a variety of

events, including mergers and acquisitions, quarterly earnings, dividend and bonus issues, stock splits, share buybacks, and more. Bonus shares are free shares of stock that are awarded to current shareholders based on how many shares they currently hold. Although the number of shares owned grows as a result of this stock activity, the overall value stays the same. This occurs as a result of the ratio of held shares to outstanding shares being constant despite an increase in the total number of shares.

Adam Szyszka (2001) focused on the little emerging Polish market and looks for the post-announcement drift of abnormal returns, which is comparable to that seen on developed and mature global markets. It examines whether, as the Efficient Market Hypothesis theoretically implies, the informational content of quarterly reports is appropriately represented in stock prices. This study suggests a somewhat uncommon approach to statistically validating the results, geared to the unique characteristics and constraints of performing such event studies in a small emerging market. The paper's most notable discovery is the large post-announcement drift of negative anomalous returns in a set of companies who unexpectedly disclosed incredibly dismal quarterly earnings.

Louhichi Wael (2004) helps to look at how the market reacts when the Paris Stock Exchange announces its yearly earnings. This paper examines both the informational role of accounting numbers and the intraday speed of adjustment of stock prices to new information. The sample consists of 117 overnight announcements that were shared to Reuters monitors between 2001 and 2003. There are three categories for each date's event: good news, bad news, or no news. By contrasting the actual figure with forecasts from financial analysts, this split was determined. The analysis confirmed Kim and Verrecchia hypothesis that the spread stays high for a short period of time after the release of unexpected earnings reports. Spread widening is accompanied by unusual market activity during this time. Furthermore, abnormal gains received by experienced investors disappear after fifteen minutes. When there is good news, prices reach equilibrium more rapidly than when there is bad news. This study article provides proof for Ziebart's prediction that prices will reverse thirty minutes after unfavorable news disclosures.

Gillian Hian Heng Yeo & David A. Ziebart (2016) analyzed the stock market's response to management's profits estimates which was noticed in this study; it may be attributed to either, both, or neither. The cross-sectional variability in stock market responses to management earnings projections is divided in this study into the components attributable to the forecast surprise and the earnings surprise. The findings show that both the earnings surprise and the forecast surprise have an impact on the market's response. The findings show that both the earnings surprise and the forecast surprise have an impact on the market's response. The market response, however, is more closely related to projection surprise than to earnings surprise. This implies that findings from earlier research on the reactions of the market to management earnings predictions may need to be reevaluated.

Joel S. Demski & Gerald A. Feltham (1994) helps to analyze a two-date rational expectations model. Comparative statics in this study show how the variables are affected by changes in the public report's information content, and in particular how market phenomena on the day of the public release are affected by endogenous prior knowledge acquisition and trade in anticipation of the release. The percentage of traders who get informed, the informativeness of the first-date price, the price change variance, and the anticipated trading volume at the second date are all described in terms of equilibrium.

Oliver Kim, Robert E. Verrecchia (1991) helps to study how changing investor incentives to obtain private information can impact how the market reacts to a forthcoming public statement. The research specifically examines information asymmetry, price change, and volume at the moment of the announcement. Additionally, it looks into how previous knowledge quality, information gathering costs, risk tolerance levels, and noise affect information acquisition, information asymmetry, price, and volume. Finally, the research contrasts market responses to announcements that are either unexpected or of uncertain quality with the response to anticipated announcements of known precision.

Frank Owusu, Evans Kelvin Gyau & Newman Amaning (2016) has looked into how earnings announcements affected the market price of manufacturing companies on the Ghana Stock Exchange. Because this research looks at how information affects stocks, the event study methodology was adopted. The researchers used the Standardized Excess Return method with a 21-day window and a 60-day estimation period, which addressed most of the issues with intercompany stock aggregation. The study revealed that the Ghana Stock Exchange is not efficient in the semi-strong form because earnings announcements had no impact on stock price using the Single Index and Risk Adjusted Returns Model.

CHAPTER 3
THEORETICAL FRAMEWORK

3.1. Introduction

This study investigates how stock market changes may affect automakers.
Every investor is interested in finding out the likelihood of a dividend and the likelihood of an increase in share price in the future. The two most crucial financial reports that investors use to decide whether to purchase or sell a company's stock are dividend and earnings announcements.
In the domain of financial study, the behavior of share prices is a fairly complex phenomenon. Prices in the future cannot be forecast with precision. Studying the past data is one technique to predict share price.
The performance of the economy as a whole, the industry, and the company have an impact on share prices.

3.2. Automobile Industry in India

One of the primary economic pillars in India is the automotive industry. The automobile industry is crucial to both macroeconomic expansion and technological advancement, it has historically been a reliable barometer of how the Indian economy is performing. Due to India's large proportion of young people and expanding middle class, the two-wheeler category dominates the industry in terms of volume. Also, the expanding interest of businesses in investigating the rural markets contributed to the sector's expansion. The demand for commercial vehicles is developing as a result of expanding passenger and transport sectors. New trends, such as the electrification of vehicles, especially three-wheelers and small passenger cars, are expected to fuel market expansion in the future. Automobile industry is a significant growth engine with strong backward and forward linkages. A vibrant, competitive market and the introduction of several new companies brought about by economic liberalization and deliberate governmental interventions over the past few years led to an increase in the capacity of the automobile industry and the creation of significant employment.

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. In FY22, 22.93 million automobiles were produced in India.
India is a significant exporter of automobiles and anticipates rapid export development in the near term. Additionally, a number of government-sponsored programmes, including the Automotive Mission Plan 2026, the scrappage policy, and the production-linked incentive programmes in the Indian market, are anticipated to elevate India to a position of prominence in the global two-wheeler and four-wheeler markets by 2022.

Automobile sector's share of the national GDP increased from 2.77% in 1992–1993 to around 7.1% now. Almost 19 million people are employed through it directly and indirectly. India is

quickly becoming a major automobile hub. However, the industry exhibits an irregular growth trajectory, initially suffering in 2007–2008, then exhibiting a slight recovery both in sales and output the following year, which resulted in a significant gain of 25–27% in 2009–2010. Unfortunately, the industry has continued to experience a downturn over the last two financial years.

3.2.1. Development of Automobile Sector

History

Pre-Liberalization

1930s-1980s

The first automobile ran down an Indian road in 1897. During the 1930s, cars were imported only, and in small numbers. In India, a fledgling automotive sector first appeared in the 1940s. Launched in 1942, Hindustan Motors first produced Morris automobiles, then, in 1944, longtime rival Premier produced Dodge and Plymouth for Chrysler Corporation, and, starting in the 1960s, Fiat products. In 1945, two brothers founded Mahindra & Mahindra and started assembling Jeep CJ-3A utility vehicles. The same year saw the establishment of TATA Engineering and Locomotive Company in Jamshedpur by J. R. D. Tata, the chairman of the Tata Group.

The government of India and the business sector started making attempts to establish an automotive component manufacturing industry to support the automotive industry after India gained independence in 1947. An import substitution programme was started in 1953, and restrictions on the import of fully assembled cars followed.

The first Tariff Commission was established by the government in 1952, and one of its goals was to develop a feasibility plan for the indigenization of the Indian automobile sector. The commission's report, which was submitted in 1953, suggested classifying the existing Indian automakers into groups based on their infrastructure for producing cars. Each group would have a license to produce a specific number of cars, with capacity increases possible in the future depending on demand. New procedures were put in place to carry out the recommendations of the Tariff Commission, finally excluding firms that merely imported components for assembly and those without an Indian partner. General Motors, Ford, and Rootes Group, who had assembly-only operations in Bombay, made the decision to leave India in 1954 as a result of the Tariff Commission's implementation.

The License Raj, the policies of the Tariff Commission, included similar limitations that applied to other industries, and proved to be the greatest downfall of the Indian automotive industry.

Bureaucratic red tape ultimately led to demand surpassing supply, with month-long waiting periods for cars, scooters, and motorcycles.

The start of the 1970s didn't see any growth potential in the sector and most of the collaboration license agreements came to an end, but the option to continue manufacturing with renewed branding remained. Cars were still meant for the elite and wealthy and Jeeps, owned by American Motors Corporation, were largely used by government organizations and in some rural regions. By the end of the decade, some developments were made in commercial vehicle segments to facilitate the movement of goods. The two-wheeler segment remained unchanged except for increased sales to the middle class in urban areas. There was emphasis on having more farm tractors, as India was embarking on a new Green Revolution and Russian and eastern bloc imports were brought in.

The automobile sector began to expand after 1970, when import limits were put in place, but tractors, commercial vehicles, and scooters were the main growth drivers. Cars were still a luxury item. Price limitations were finally removed in the 1970s, bringing competition to the automotive industry. Nonetheless, Hindustan and Premier continued to dominate the automotive market by the 1980s, even though they only sold a small amount of superannuated goods.

A few competitors started to enter the market in the 1980s. A new competitor was the tiny Sipani, which had sought to produce locally created three-wheeled vehicles since 1975 but debuted the Dolphin, based on the Reliant Kitten, in 1982. Yet, Maruti captured everyone's attention and significantly disrupted the Indian auto sector. The government was compelled by this circumstance to encourage and admit more manufacturers to the contest. The Ordnance Factory Medak, which is near Hyderabad, was founded in 1984. The foundation of India's mechanized infantry, the Infantry Combat Vehicles known as Sarath, were first produced there. OFMK is still the only manufacturing facility of ICVs in India. Engine Factory Avadi, close to Chennai, was established in 1987 to produce the high-power engines used in ICVs and main battle tanks.

The Delhi Auto Expo was founded by the government in 1986 to promote the auto sector. The 1986 Expo served as a demonstration of how the Indian automobile sector was embracing new technology, encouraging homegrown research and development, and modifying these technologies for India's challenging environmental circumstances.

Post-Liberalization
After 1990s

The formation of an automotive sector in India was aided by the authorization of investments by multinational automakers Suzuki, Toyota, and Hyundai of Japan and South Korea in the Indian market. The earliest and most prosperous of these new entrants was Maruti Suzuki as a result of

government initiatives to support the automotive sector. In 1991, India started to liberalize its auto industry, and several international companies started joint partnerships with already established Indian businesses. In the 1990s, the number of options available to consumers started to increase, whereas previously there had typically just been one option in each price range. In 2000, there were 12 big automakers operating in India, the majority of them subsidiaries of multinational corporations.

Exports only slowly increased. Early on, Maruti Suzuki started selling a few cars to tertiary markets and neighboring nations. In 1987, 480 cars were delivered to Europe. Exports declined again after experiencing modest increase in the middle of the 1990s because multinationals' outdated platforms for Indian manufacturers were uncompetitive. Global companies like Proton Holdings, PSA Group, Kia, Mazda, Chrysler, Dodge, and Geely Holding Group were shelving plans for India as of March 18, 2013, as a result of the market's intense competition and the ongoing global financial crisis.

The central government presented "India 2000" regulations in 2000 in accordance with global norms to combat vehicular pollution. Later, improved standards known as Bharat Stage emission limits were introduced. These regulations, which have been imposed gradually, are remarkably close to the strict European emission standards. The central government of India announced the implementation of BS-VI guidelines to manage air pollution, taking effect from 1 April 2020, in line with worldwide standards to reduce vehicular pollution.

Cars imported from outside India are subject to a 125% import duty, while gearboxes, airbags, and drive axles are subject to a 10% duty. As a result, the levies incentivize car assembly in India as opposed to totally finished cars being imported.

The segment was significantly influenced by the new tax structure that the Indian government adopted in 2006. Tata Motors was the first to take advantage of the new tax system, redesigning the back end of the Indigo sedan and renaming it the Indigo CS after cutting its length to 3,988 mm (157.0 in). The design became much less expensive, becoming among the top-selling three-box vehicles in the nation. The shorter Suzuki Swift Dzire, the updated Honda Brio Amaze, and other vehicles were introduced as a result of other manufacturers' swift adaptation.

3.2.2. Automobile Industry Regulations in India

The Ministry of Shipping, Road Transport & Highways, which is the key agency for regulation of the automotive sector in India, is responsible for overseeing the automotive legislation in that country. In addition to the Ministry of Shipping, Road Transport & Highways, other crucial

ministries like the Ministry of Petroleum & Natural Gas and the Ministry of Environment & Forests play a significant part in the development of automotive standards and regulations in India.

The Motor Vehicles Act, 1988 (MVA) and the Central Motor Vehicles Regulations, 1989 are the main laws controlling the automobile industry in India (CMVR). The Act unifies the law governing motor vehicles and regulates India's pollution regulations and safety requirements. The rules that thoroughly explain the MVA are provided by the CMVR.

The Bureau of Indian Standards creates the National Standards for the Automobile Industry (BIS). The Central Motor Vehicles Regulations -Technical Standing Committee is asked to approve these standards. Following clearance, it is sent to the Ministry of Shipping, Road Transport & Highways for ultimate approval by the Central Motor Vehicles Regulations -Technical Standing Committee. The BIS also converts the standards created by the Automotive Industry Standards Committee into Indian Standards. The Central Motor Vehicles Regulations -Technical Standing Committee evaluates the standards developed by BIS and AISC for implementation.

To the extent that there is consistent expansion in the automobile industry, Indian rules and norms are on par with worldwide standards. Yet rather than the committees being overseen by multiple Ministries, there is a need to further unify the regulations by enacting a single piece of legislation that would apply to all committees in India.

3.2.3. Company Profile

There are a number of automobile manufacturers in the nation. The following are the top five automobile companies in India.

1. **Maruti Suzuki:**

Indian automaker Maruti Suzuki India Ltd, previously Maruti Udyog Limited, has its corporate office in New Delhi. It is a subsidiary of Suzuki Motor Corporation, a Japanese automaker. In India, Maruti Suzuki has 3,598 sales locations spread across 1,861 cities. Maruti Suzuki is one of the most trusted brands in India, according to the Brand Trust Report issued by Trust Research

Advisory, a brand analytics firm. In 2013, Maruti Suzuki was ranked 37th, while in 2019, it was placed 9th.

Maruti Suzuki India Ltd is a holding corporation. The business produces, buys, and sells motor vehicles, as well as their parts and accessories. The Company's additional interests include fleet management, financing, and the facilitation of used car transactions.

In the second quarter of FY21, which ended in September, the automaker Maruti Suzuki reported revenue growth of 10.34% to Rs 18,755.6 crore and a 2.05 percent year-over-year increase in consolidated profit at Rs 1,419.6 crore. In contrast, the business reported earnings of Rs 1,391 crore and revenue of Rs 16,997.9 crore for the same quarter previous year.

2. Hyundai Motors India

Hyundai Motor Co. is a manufacturer of automobiles. The business creates, develops, produces, and sells automobiles, including chassis, engines, and parts for cars, trucks, buses, SUVs, MPVs, and hydrogen-powered vehicles. Hyundai also offers services for processing credit cards and financing vehicles. Hyundai sells its goods under a number of different brand names, including Veloster, Venue, Azera, i40, Elantra, Tucson, Accent, Kona, Creta, Sonata, i20, and ix20. The business works to create cutting-edge technology including robotics and advanced air mobility. It operates in Europe, Asia Pacific, North and South America, and other continents. The business has

production sites in the US, Brazil, Russia, China, Korea, Turkey, India, and the Czech Republic. The headquarters of Hyundai are in Seoul, South Korea.

Established on May 6, 1996, Hyundai Motor India Ltd is an unlisted public business. It is categorized as a public limited corporation and is situated in Tamil Nadu's Puram District. Its entire paid-up capital is INR 812.54 billion, compared to its authorized share capital of INR 1,400.00 billion. The operating revenue range for Hyundai Motor India Limited for the financial year that ends on March 31, 2022, is greater than INR 500 cr. Its EBITDA has increased over the previous year by 29.59%. Its book net value has also improved by 9.95% over this time.

3. Mahindra and Mahindra

The Mahindra Group's flagship company, Mahindra & Mahindra Ltd (M&M), is a multifaceted corporation. It operates in key sectors including transportation, aerospace, agribusiness, aftermarket, information technology, consulting, components, clean energy, financial services, infrastructure, industrial and construction equipment, two-wheelers, retail, steel, hospitality, IT services, transportation, and logistics. The US, France, Finland, India, Japan, Africa, China, and Australia are among the countries where it has manufacturing units. Also, the business runs facilities for research and development. Together with North America, M&M also has operations

in India, South Korea, Japan, and Italy. Mumbai, Maharashtra, India is home to the M&M company.

Mahindra and Muhammad founded the steel trade company Mahindra & Mahindra Ltd in Ludhiana in 1945. The firm changed its name to Mahindra and Mahindra in 1948. In 1999, the business bought Gujarat Tractors outright from the Gujarat government. The firm became the biggest tractor producer in the world in 2007 after acquiring Punjab Tractor Limited (PTL). PTL was combined with M&M in 2009, becoming the Swaraj business of Mahindra & Mahindra. In 2011, SsangYong Motor Corporation in South Korea was purchased by Mahindra & Mahindra. By purchasing Renault's interest, the business concluded its joint venture with Renault in 2020. The business of the corporation is growing all over the world.
Revenue for the enterprise is Rs.1.06 lakh crores in 2020.

4. Tata Motors

Tata Motors, which was established in India in 1945 and is a member of the US$100 billion Tata group, operates in India, the UK, South Korea, Thailand, South Africa, and Indonesia. By revenue, Tata Motors Limited (TML), a 42 billion USD firm, is India's largest automaker. The business, a top producer of cars, trucks, buses, utility vehicles, and defense vehicles worldwide, is aiming to provide smart mobility solutions for smart cities. To help the government's mission on electric vehicles, Tata Motors is also creating a smart range of EVs to hasten the adoption of EVs in the nation.

Due to Brexit uncertainty and the present global automotive market slump, total revenue has fluctuated. Revenues increased from $41 billion in FY 2017 to $44.2 billion in FY 2018, but

dropped to $43.6 billion in FY 2019. The overall revenue was predicted to rebound to $44.2 billion in FY 2020, before rising to $44.6 billion and $44.8 billion in FY 2021 and FY 2022, respectively. The domestic market is anticipated to continue expanding, and the Tata brand has performed well in recent years. Sales volume went from 480.9K in FY 2017 to 679.3K in FY 2019, demonstrating a favorable growth. In FY 2019, revenue per vehicle decreased to Rs. 922K. Tata Brand vehicle exports are anticipated to continue growing after reaching $1.76 billion in FY 2019.

5. Honda Cars India Ltd.

Honda Motor Corporation, Ltd. is a publicly traded Japanese multinational conglomerate business best known for producing automobiles, motorcycles, and power tools. The fundamental tenets of Honda Motor Co., Ltd. are "Respect for the Individual" and "The Three Joys," which are frequently referred to as The Joy of Buying, The Joy of Selling, and The Joy of Creating.

Since 1959, Honda has been the largest motorcycle producer in the world, and by the end of 2019, it has produced 400 million motorcycles. In 2001, Honda overtook Toyota as the second-largest producer of automobiles in Japan. In 2015, Honda ranked as the eighth-largest automaker in the world.

The 2008–2010 automotive crisis was a result of the global financial collapse, which also affected suppliers and manufacturers of automobiles. Less fuel-efficient models were available to buyers in 2008, and sales of larger automobiles from manufacturers including General Motors, Toyota, Ford, Chrysler, Nissan, and Honda Motors declined. Honda has employed PEST and SWOT analysis to forge on with its efforts to increase sales while also focusing on the market's weaknesses. As the leader in the automotive sector, Honda has researched its PEST analysis and the elements that are affecting its business. This knowledge is important when dealing with customers as Honda must know its strengths and weaknesses. Knowing their needs, wants, and demands was all that was required.

3.3. Quarterly Results

The quarterly reports that businesses produce at the end of every three months in their financial year provide information on quarterly results. It is an unaudited financial account summary that also compares the results from the prior quarter and year. Quarterly reports are submitted under various heads, demonstrating the cost and profit of those investments or expenditures. As public companies are required to disclose their reports due to being listed, quarterly results are usually viewed in this context. Quarterly reports are not necessary for private companies, nor are they needed to be published.

These reports are filed to the Securities and Exchange Commission. These numbers could be used for comparative studies. The Securities and Exchange Commission typically provides access to these records to stakeholders and investors. They are accessible through the Securities and Exchange Commission as Form 10Q. Quarterly reports are submitted in accordance with Section 41 of the listing agreement. The reports must be submitted 45 days after the conclusion of each quarter. The entire gross revenue, operating costs, cash flow, and net profits should all be disclosed.

3.3.1. Elements of Quarterly Results

The quarterly income statements of companies are to be published within 45 days from the time the quarter ended. The statement publish must contain the following:

- Revenue from Operations
- Total Revenue from Operations
- Other Income
- Total Expenses
- Profit Before Tax (PBT)
- Total Tax Expenses

- Profit for the Period
- Total other comprehensive income for the period
- Total comprehensive income for the period
- Paid-up Equity Share Capital
- Face Value of the Share
- Earnings Per Share (EPS)

3.3.2. Impact of Quarterly Results

Quarterly results are a crucial indicator of the company's ongoing success. Companies now provide forecasts for the upcoming quarters in addition to quarterly results with a year-over-year comparison. From an analytical viewpoint, this is a significant realization for the expert community.

Net profits are typically very sensitive to price when it comes to quarterly results. In fact, any sudden changes in the earnings pattern often prompt an instant response in the market prices. Price movement usually depends on whether quarterly earnings exceeded or fell short of analyst expectations.

If the findings are better than anticipated, more people will want to buy the stock, increasing share prices. However, some investors may decide to leave if company results don't meet their expectations, which will result in a decline in share prices. Investors frequently assess a company's success using quarterly numbers.

3.3.3. Merits and Demerits Relating to Quarterly Results

Merits

- Information asymmetry is reduced by quarterly results.
- It increases investor trust, which aids in attracting more capital to the company.
- It limits any potential for financial window dressing, which is challenging for yearly reports. Window dressing is the process of making year-end financial records appealing in order to draw in new investors for the company.
- Transparent financial statements are disclosed as an outcome of quarterly results.

Demerits

- Since quarterly results are not audited, an ordinary person may find them difficult to understand.
- Preparing these reports consistently in accordance with the performance goals of the company is difficult.
- Unlike annual reports, quarterly results are typically not standardized.
- The growth prospects of the company may be impacted by any action that is reported in the quarterly reports but not in the annual reports.

3.4. Share Price

A share price, also referred to as a stock price, is the price at which one share of a business would be purchased. A share's price is not constant; rather, it changes over time in response to market factors. It is likely to rise if the business is considered to be doing well or decline if it isn't living up to expectations. The market capitalization of a publicly traded business is the sum of the values of all of its outstanding shares, and it represents the company's overall worth.

Share prices are originally set through initial public offerings (IPOs), where the cost of one share is determined by the perceived supply and demand for that company's stock. Prices are typically set by a bookrunner, a lead manager hired particularly to help the company determine the ideal price for its IPO. The share price of a business can be influenced by a variety of factors after the IPO. For instance, the price would decrease if there were more shares available on the market. The share price would decrease with any decrease in demand, perhaps as a result of changes in a company's top leadership.

The value of a business is reflected in the share price. If there are few shares outstanding, it may not always be the case that a highly priced share represents a valuable business. Sometimes a company's management chooses to implement a stock split, which lowers the price of the shares by raising the number of outstanding shares. This happens when the share price rises sufficiently. A struggling business may have a very cheap share price. Investors should be aware that so-called penny stocks can be very hazardous and volatile.

3.4.1. Factors Influencing Share Price

Share prices are determined by estimates about a company's expected future development and profitability. Share values may decrease if those hopes are dashed. Looking at the dividends a

company pays to its shareholders, which reflect profitability, is one method to measure this growth. Future cash flows, level of debt, and available liquidity of a business are additional aspects to consider. These are looked at to determine a company's ability to fulfill both short- and long-term responsibilities.

Demand and Supply

The demand and supply economic concept are the foundation upon which the stock market is built. These two elements determine how much a specific stock will cost. When there are more buyers than sellers of a specific stock, the demand for that stock is said to be greater than its supply. This inevitably causes the price of that specific share to increase because it shows that buyers are eager to pay a premium for the stock. When there are more sellers than buyers of a specific stock, the supply exceeds the demand for that stock. A stock's worth drops as a result.

Fundamental Factors

Financial information about a specific business is frequently referred to as a fundamental factor. One of the key elements influencing share prices in India is a company's financial success. Companies with poor financial success are frequently overlooked by investors, which causes the stock price to fall. Additionally, traders and investors seeking to make money have a tendency to favor businesses with exceptionally strong financials, which in turn increases demand for that specific stock and raises prices.

Economy

When forecasting the price movement of shares, most investors have a tendency to underestimate the impact of the present economic environment. One of the many crucial variables affecting share prices is the state of the national economy and the developments in the global economy. If the economics of a nation tends to slow down, which discourages FIIs from making new investments.

Government Policies

Share prices on the stock market are usually considered to be significantly influenced by government policies. The share prices of the related businesses and sectors typically increase when investors view the government's recently announced policies favorably. Unfavorable policies, particularly those that relate to taxes, can, however, erode investor confidence. This then causes a sell-off, which can rapidly send the share prices spiraling downward.

Political Scenario

Investors always try to avoid making investments in nations that are experiencing political turmoil or instability, as doing so significantly raises the risk of their money being eroded. Additionally, any significant change in the domestic political environment may, in the near term, have an impact on how much shares of stock fluctuate in price.

Dividend Declarations

Dividend announcements have a significant impact on share values in India. When a dividend is declared, a company's stock values generally increase. Because investors typically view businesses that declare dividends as being financially strong and stable, the share price has increased. However, the likelihood of the share price falling grows if a company's dividend declaration falls short of investors' expectations.

CHAPTER 4
DATA ANALYSIS AND INTERPRETATIONS

4.1. Introduction

In order to compare and analyze the change in profit or loss and the respective change in the share price of Maruti Suzuki and Tata Motors with regards to their quarterly results.

In total the data is collected for eight quarters, from the third quarter of the financial year 2020-21 to the second quarter of the financial year 2022-23. Namely, in the FY 2020-21, Q3 - from 1st October 2020 to 31st December 2020 and Q4 - from 1st January 2021 to 31st March 2021, in FY 2021-22, Q1 - from 1st April 2021 to 30th June 2021, Q2 - 1st July 2021 to 30th September 2021, Q3 - 1st October 2021 to 31st December 2021 and Q4 - 1st January 2022 to 31st March 2022 and in the FY 2022-23, Q1 - 1st April 2022 to 30th June 2022 and Q2 - 1st July 2022 to 30th September 2022. A correlation analysis using Karl Pearson's Coefficient of Correlation is conducted in order to measure the relation between quarterly results and share price of the selected automobile companies. The first two quarters of the year 2022-23, i.e. Q1 from 1st April 2022 to 30th June and Q2 from 1st July 2022 to 31st September 2022 are used for comparative analysis. Performance is analyzed on the basis of profitability, liquidity, total income from operations, total expenses etc. The above data of automobile companies - MARUTI SUZUKI and TATA MOTORS were collected from secondary sources. The annual and quarterly reports of both the companies were evaluated in order to analyze the reasons for the changes.

4.2. Correlation

Correlation is a statistical concept that expresses the linear relationship between two variables. It's a common method for describing simple relationships without mentioning cause and effect precisely.
In this analysis we are using Karl Pearson's Coefficient of Correlation.

KARL PEARSON'S COEFFICIENT OF CORRELATION

Karl Pearson's Coefficient of Correlation is a mathematical method for estimating or determining the range, magnitude, and direction of the relationship between two variables that are linearly related to one another. Karl Pearson's Coefficient of Correlation is a quantitative approach.

Karl Pearson's coefficient of correlation is described as a linear correlation coefficient with a value range of -1 to +1. High negative correlation is denoted by a value of -1, and high positive correlation is shown by a value of +1.

4.2.1. MARUTI SUZUKI

Table 4.1. Karl Pearson's Coefficient of Correlation of Quarterly Results and Share Price: Maruti Suzuki

(Results - crores, Share price - Rs.)

Quarters	Results (X)	X^2	Share Price (Y)	Y^2	XY
Dec 2020	1,997	3988009	7,650	58522500	15277050
Mar 2021	1,241	1540081	6,859	47045881	8512019
Jun 2021	475	225625	7,516	56490256	3570100
Sep 2021	487	237169	7,338	53846244	3573606
Dec 2021	1,042	1085764	7,426	55145476	7737892
Mar 2022	1,876	3519376	7,561	57168721	14184436
Jun 2022	1,036	1073296	8,471	71757841	8775956
Sep 2022	2,112	4460544	8,828	77933584	18644736
TOTAL	**ΣX = 10,266**	**ΣX^2 = 16129864**	**ΣY = 61,649**	**ΣY^2 = 477910503**	**ΣXY = 80275795**

Karl Pearson's Coefficient of Correlation:

Correlation between quarterly results and share price of Maruti Suzuki = 0.402

Interpretation:

The correlation between the quarterly results and share price of Maruti Suzuki is 0.402. This indicates that there exists a low to moderate degree of positive correlation between the company's quarterly results and share price. Therefore, we can say that the two variables, both the quarterly results and share price of Maruti Suzuki move in the same direction, that is, when quarterly results increase the share price of the company also increases moderately.

4.2.2. TATA MOTORS

Table 4.2. Karl Pearson's Coefficient of Correlation of Quarterly Results and Share Price: Tata Motors

(Results - crores, Share price - Rs.)

Quarters	Results (X)	X^2	Share Price (Y)	Y^2	XY
Dec 2020	2,941	8649481	184	33856	541144
Mar 2021	-7,585	57532225	302	91204	-2290670
Jun 2021	-4,450	19802500	340	115600	-1513000
Sep 2021	-4,416	19501056	333	110889	-1470528
Dec 2021	-1,451	2105401	482	232324	-699382
Mar 2022	-992	984064	434	188356	-430528
Jun 2022	-4,951	24512401	412	169744	-2039812
Sep 2022	-898	806404	405	164025	-363690
TOTAL	**ΣX = -21,802**	**ΣX^2 = 133893532**	**ΣY = 2892**	**ΣY^2 = 1105998**	**ΣXY = -8266466**

Karl Pearson's Coefficient of Correlation:

Correlation between quarterly results and share price of Tata Motors = - 0.181

Interpretation:
The correlation between the quarterly results and share price of Tata Motors Ltd is -0.181. This indicates that there exists a very low degree of negative correlation between the quarterly results and share price of the company. Therefore, we can say that the two variables considered in the analysis, quarterly results and share price of Tata Motors Ltd, move in the opposite directions. When quarterly results decrease the share price of the company shows slight increase. The slight increase is because of the weak negative correlation.

4.3. Comparative Study

Comparative studies are studies to analyze and evaluate a phenomenon or facts among various fields, topics, or objects to find similarities and differences using quantitative and qualitative methods.

The Income Statement of the latest two quarters, that is Q1 and Q2 of FY 2022-23 of Maruti Suzuki and Tata Motors were compared using the comparative analysis.

Table 4.3. Comparative Analysis of Results of Q1 and Q2 FY - 2022-23: Maruti Suzuki

In Crs.

Particulars	Q1 (Mar-Jun 2022)	Q2 (July-Sept 2022)	Absolute Change Increase/ Decrease	% Increase/ Decrease
Net Sales/ Income from operations	25,286.30	28,543.50	3,257.20	12.88
Other Operating Income	1,213.50	1,387.30	173.80	14.32
Total Operating Income	**26,499.80**	**29,930.80**	**3,431.00**	**12.94**
Consumption of Raw Materials	12,237.70	13,238.10	1,000.4	8.17
Purchase of Traded Goods	7,561.50	8,796.40	1,234.9	16.33
*Increase/Decrease in Stocks	-29.00	-154.40	-125.4	432.41
Employees Cost	1,158.40	1,132.70	-25.7	-2.21
Depreciation	651.40	722.60	71.20	10.93
Other Expenses	3,659.10	4,149.10	490.00	13.39
Total Expenses	**25,239.10**	**27,884.50**	**2,645.40**	**10.48**
Profit/ Loss before other income, interest	**1,260.70**	**2,046.30**	**785.60**	**62.31**

Other Income	88.50	612.50	524.00	592.09
Profit before interest	**1,349.20**	**2,658.80**	**1,309.60**	**97.06**
Interest	27.40	30.50	3.10	11.31
Profit Before Tax	**1,321.80**	**2,628.30**	**1306.50**	**98.84**
Tax	309.00	566.80	257.80	83.43
Profit After Tax (Net Profit/ Loss for the Period)	**1,012.80**	**2,061.50**	**1048.70**	**103.54**

*Change in stock = Opening Stock - Closing Stock

Interpretation:

The total income earned from operating activities increased up to 12.94% while the operating expenses also increased at a rate of 10.48%. This increased the profits from Rs. 1,260.70 crores to Rs. 2,046.30 crores, an increase of 62.31%. The other income showed a huge growth during the second quarter of the financial year 2022-23. This resulted in the huge increase in Profit After Tax (PAT). The PAT showed a significant increase of 103.54%, an increase of Rs. 1048.54 crores. Therefore, we can say that the reason for the increase in net profit of Maruti Suzuki in the second quarter is mainly because of the increase in other incomes of the company.

Table 4.4. Comparative Analysis of Results of Q1 and Q2 FY - 2022-23: Tata Motors

In Crs.

Particulars	Q1 (Mar-Jun 2022)	Q2 (July-Sept 2022)	Absolute Change Increase/ Decrease	% Increase/ Decrease
Net Sales/ Income from operations	14,793.12	14,850.97	57.85	0.39
Other Operating Income	81.32	95.81	14.49	17.81
Total Operating Income	**14,874.44**	**14,946.78**	**72.34**	**0.48**
Consumption of Raw Materials	10,525.85	9,674.40	-851.45	-8.08

Purchase of Traded Goods	1,655.95	1,513.01	-142.94	-8.63
*Increase/Decrease in Stocks	-919.23	349.83	1269.06	-138.05
Employees Cost	1,062.85	964.43	-98.42	-9.26
Depreciation	422.98	446.13	23.15	5.47
Other Expenses	2,190.13	2,145.02	-45.11	-2.06
Total Expenses	**14,938.53**	**15,092.82**	**154.29**	**1.03**
Profit/ Loss before other income, interest	**179.78**	**106.74**	**-73.04**	**-40.62**
Other Income	210.77	195.06	-15.71	-7.45
Profit before interest	**390.55**	**301.80**	**-88.75**	**-22.72**
Interest	528.80	549.35	20.55	3.88
Profit Before Tax	**-139.68**	**-251.59**	**-111.91**	**80.11**
Tax	41.35	41.00	-0.35	-0.84
Profit After Tax (Net Profit/ Loss for the Period)	**-181.03**	**-292.59**	**-111.56**	**61.62**

*Change in Stock = Opening Stock - Closing Stock

Interpretation:

The net sales of tata motor didn't have any significant increase during the second quarter. As a result, the total income from operating activities showed only an increase of 0.48%. However, the total expenses increased by 1.03%. This eventually led to a lesser profit of Rs. 106.74 crores in the second quarter against the profit of Rs. 179.78 crores in the first profit, a decrease of 40.62%. The incomes earned from non-operating activities also decreased. Overall the company experienced a net loss of Rs. 292.59 crores. The loss for the first quarter was only Rs. 181.03 crores, which means that the loss increased by 61.62%. Therefore, we can say that the reason for increase in loss is that the increase in expenses is more than that of the increase in income.

4.4. Change in Results and Share Price

4.4.1. MARUTI SUZUKI

- **Share Price**

The market leader in the passenger vehicle segment, Maruti Suzuki, has grown by 13%. But the recent financial market turmoil and the unfavorable perception of the car industry have affected the stock.

Table 4.5. Change in Share Price: Maruti Suzuki

Quarters	Share Price	Change (%)
2020-21:		
Q3 - Dec 2020	7,649.60	100
Q4 - Mar 2021	6,859.20	89.66
2021-22:		
Q1 - June 2021	7,515.90	98.25
Q2 - Sep 2021	7,338.05	95.92
Q3 - Dec 2021	7,426.45	97.08
Q4 - Mar 2022	7,561.30	98.84
2022-23:		
Q1 - June 2022	8,470.75	110.73
Q2 - Sep 2022	8,828.15	115.4

Figure 4.1. Percentage Change in Share Price: Maruti Suzuki

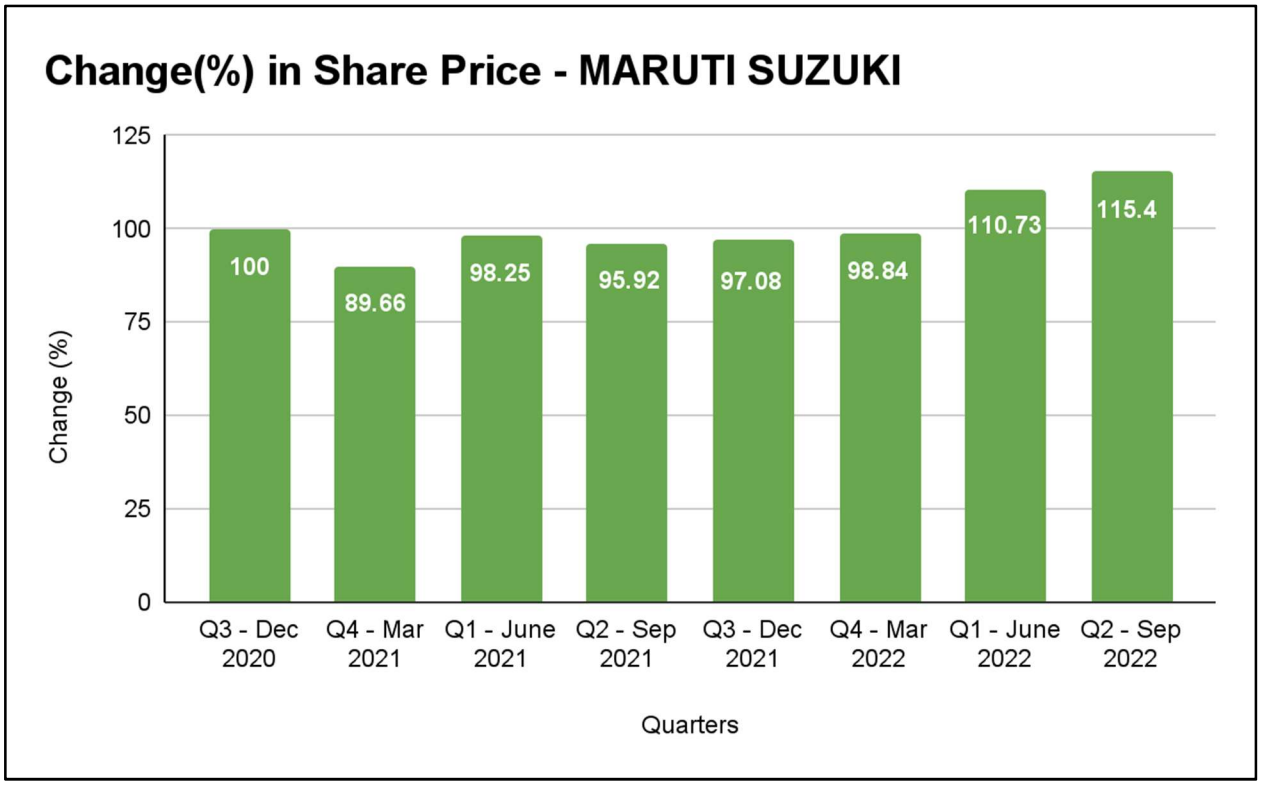
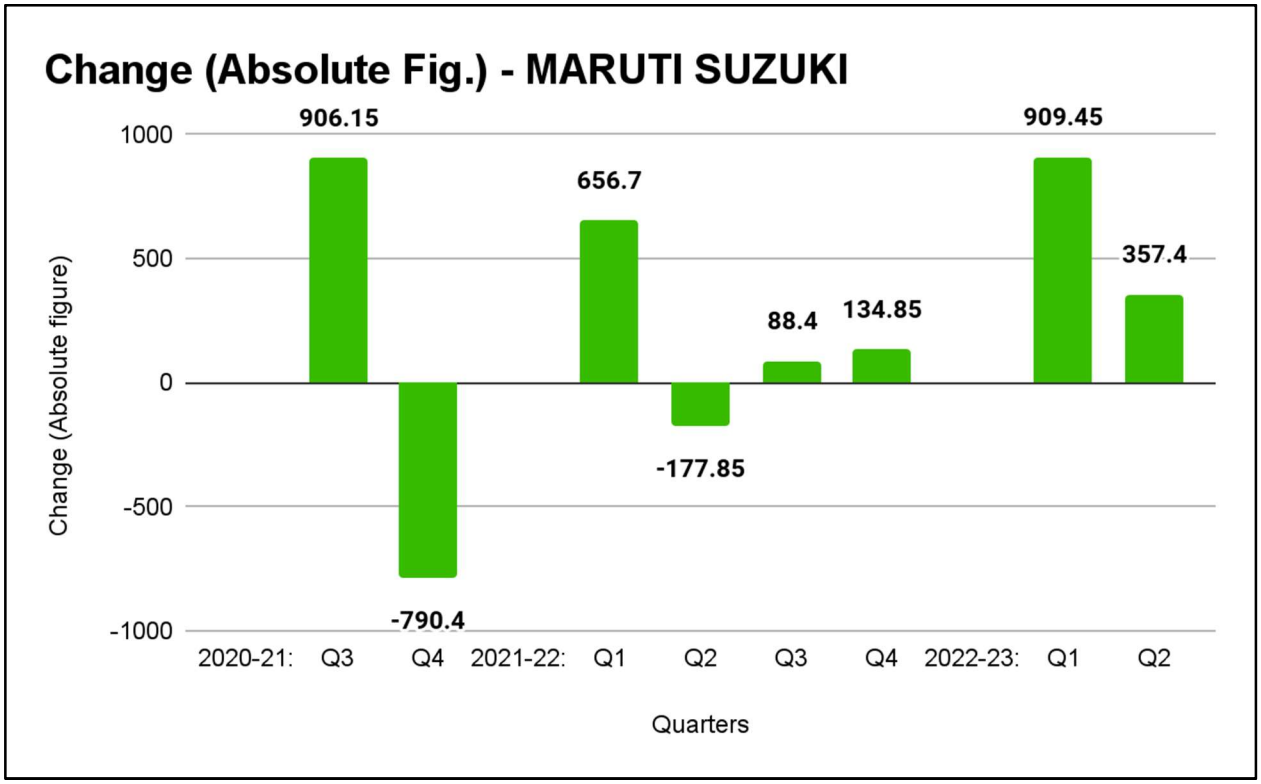


Figure 4.2. Change (Absolute Figure) in Share Price: Maruti Suzuki



- **Quarterly Results**

Due to a slowdown in the automotive industry's sales, the company's consolidated net revenue fell 39% in the quarter from July to September. According to The Economic Times, the company recorded a net profit of Rs 1,358.60 crore for the quarter ending in September. It had recorded a net profit of Rs 2,240.4 crore in the corresponding quarter last year.

Table 4.6. Quarterly Results of Maruti Suzuki

QUARTERLY RESULTS OF MARUTI SUZUKI INDIA (in Rs. Cr.)	DEC '20	MAR '21	JUN '21	SEP '21	DEC '21	MAR '22	JUN '22	SEP '22
Net Sales/Income from operations	22,236.70	22,958.60	17,770.70	19,297.80	22,187.60	25,514.00	25,286.30	28,543.50
Other Operating Income	1,221.10	1,065.10	--	1,241.10	1,058.40	1,226.00	1,213.50	1,387.30
Total Income from Operations	23,457.80	24,023.70	17,770.70	20,538.90	23,246.00	26,740.00	26,499.80	29,930.80
Consumption of Raw Materials	11,043.10	12,066.20	8,543.20	9,215.80	10,042.50	11,937.20	12,237.70	13,238.10
Purchase of Traded Goods	5,754.20	6,050.50	4,938.90	6,502.30	7,078.30	7,871.00	7,561.50	8,796.40
Increase/Decrease in Stocks	218.3	-365.8	-191.6	-141.1	382.3	-141.5	-29	-154.4
Employees Cost	945.5	900.3	1,064.30	962.2	969.9	1,025.80	1,158.40	1,132.70
Depreciation	741.3	741	743.2	756.1	640	647.2	651.4	722.6
Other Expenses	3,270.60	3,381.40	2,594.80	3,144.80	3,214.00	3,620.70	3,659.10	4,149.10
P/L Before Other Inc., Int., Excpt. Items & Tax	1,484.80	1,250.10	77.9	98.8	919	1,779.60	1,260.70	2,046.30
Other Income	993.7	89.8	507.8	522.7	328	474.4	88.5	612.5
P/L Before Int., Excpt. Items & Tax	2,478.50	1,339.90	585.7	621.5	1,247.00	2,254.00	1,349.20	2,658.80
Interest	28.7	32.4	22.2	22.5	25.2	56	27.4	30.5
P/L Before Exceptional Items & Tax	2,449.80	1,307.50	563.5	599	1,221.80	2,198.00	1,321.80	2,628.30
P/L Before Tax	2,449.80	1,307.50	563.5	599	1,221.80	2,198.00	1,321.80	2,628.30
Tax	508.4	141.4	122.7	123.7	210.5	359.1	309	566.8
P/L After Tax from Ordinary Activities	1,941.40	1,166.10	440.8	475.3	1,011.30	1,838.90	1,012.80	2,061.50
Net Profit/(Loss) For the Period	**1,941.40**	**1,166.10**	**440.8**	**475.3**	**1,011.30**	**1,838.90**	**1,012.80**	**2,061.50**

Figure 4.3. Percentage Change in Net Profit/ Loss: Maruti Suzuki

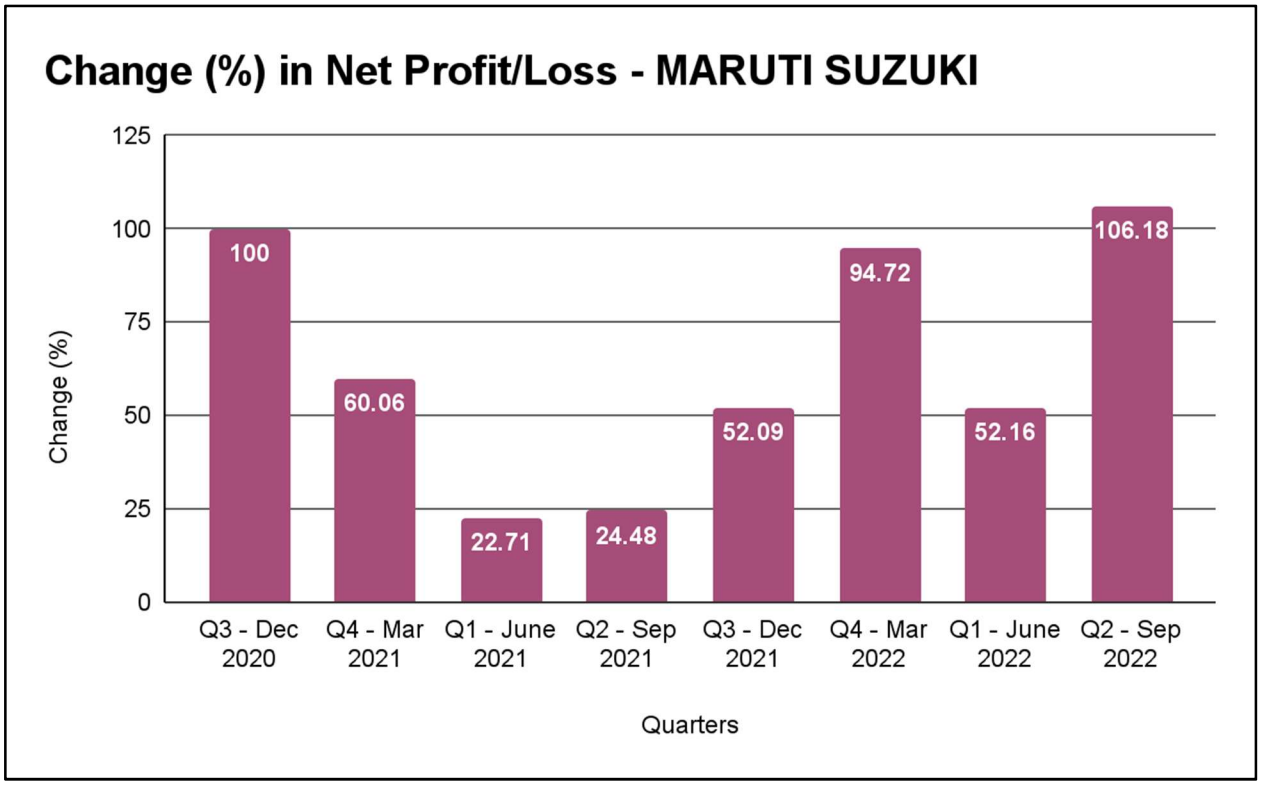
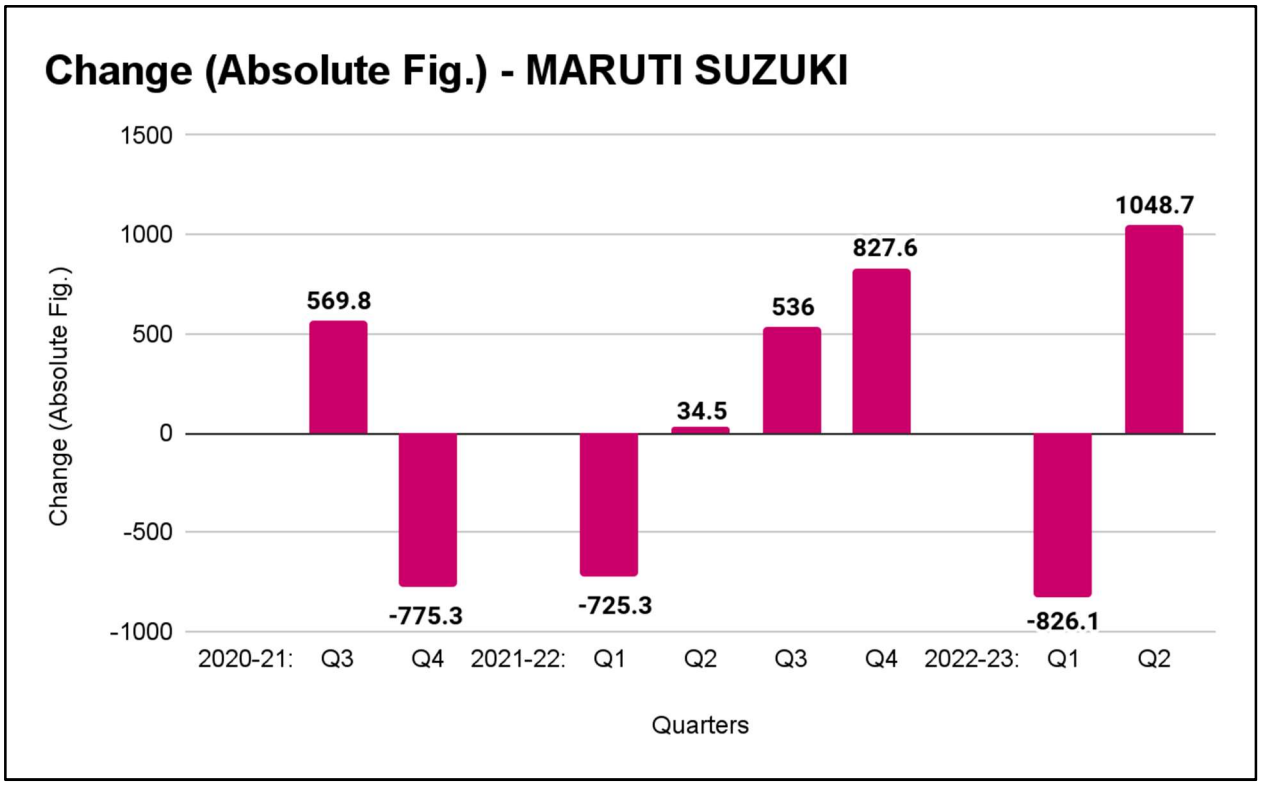


Figure 4.4. Change (Absolute Figure) in Net Profit/ Loss: Maruti Suzuki

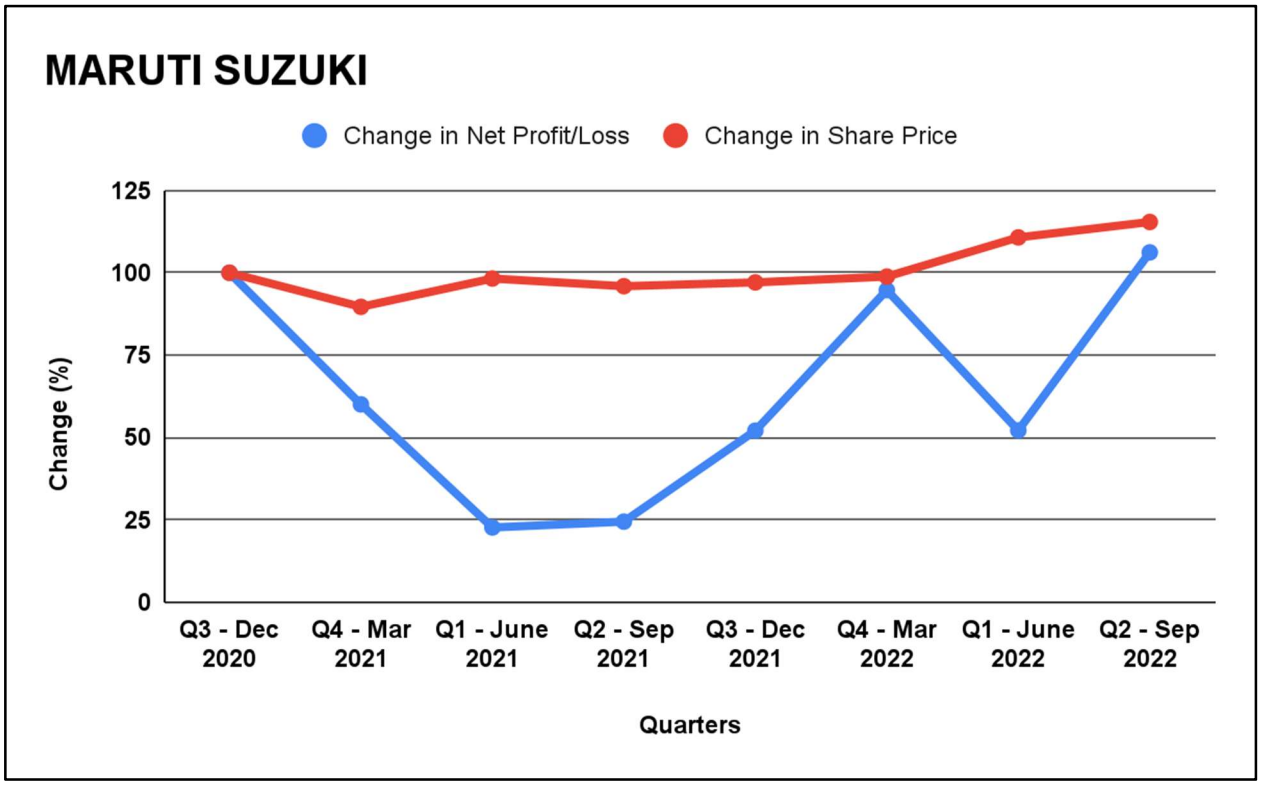


- **Relation Between Net Profit/Loss and Share Price of Maruti Suzuki**

Table 4.7. Relation Between Change in Net Profit/Loss & Change in Share Price: Maruti Suzuki

Quarter	Net Profit/Loss	Change in Net Profit/Loss (%)	Share Price	Change in Share Price (%)
Q3 - Dec 2020	1,941.40	100	7,649.60	100
Q4 - Mar 2021	1,166.10	60.06	6,859.20	89.66
Q1 - June 2021	440.80	22.71	7,515.90	98.25
Q2 - Sep 2021	475.30	24.48	7,338.05	95.92
Q3 - Dec 2021	1,011.30	52.09	7,426.45	97.08
Q4 - Mar 2022	1,838.90	94.72	7,561.30	98.84
Q1 - June 2022	1,012.80	52.16	8,470.75	110.73
Q2 - Sep 2022	2,061.50	106.18	8,828.15	115.41

Figure 4.5. Relation Between Net Profit/ Loss and Share Price: Maruti Suzuki



Interpretation:
During the third quarter of the financial year 2020-21, that is from 1st October 2020 to 31st December 2020 the company earned a net profit of Rs. 1,941.40 crores during which its share price was Rs. 7,649.60. In the following quarter, from 1st January 2021 to 31st March the net profit decreased to Rs. 1,166.10 crores and the share price also experienced a 10.33% decrease.
In the next quarter, i.e., the first quarter of the financial year 2021-22, there was an extreme decrease in the net profit. The net profit fell from Rs. 1,166.10 crore to 440.80 crores but the usual direct relationship between the net profits and the share price was not present here as the share prices rose from Rs. 6,859.20 to Rs. 7,515.90, an increase of 9.57%. For the next three quarters, Q2, Q3 and Q4 of financial year 2021-22, the company encountered an increase in the net profits, Rs. 475.30, Rs. 1,011.30 and Rs. 1,838.90 respectively. Even though the share price of the company showed an increase after the publishing of third and fourth quarter results, the second quarter resulted in the fall of share price to an extent of 2.36%. During the first quarter of the financial year 2022-23, i.e., from 1st April to 30th June, the net profits experienced a decrease of Rs. 826.10 crores but the share prices showed an extreme increase of 12.02 %. Share prices increased from Rs. 7,561.30 to Rs. 8,470.75. And during the second quarter of 2022-23 financial year, there was an increase in both the net profit and share price. While the net profit showed an increase of 103.54%, the share price during the same quarter increased at a rate of 4.21%. Therefore, we can say that even though the net profits of the company showed great fluctuations in these eight quarters, the share price almost remained constant. The reason behind the fewer fluctuations in the share price may be because of the brand image that the company has gained over the years. People may tend to buy the share even when there is deterioration in the profits earned by the company because of their goodwill. The investor supports businesses in an effort to benefit from the goodwill that has been built up over many years and that can be recovered with the proper management. Therefore, a loss-making company can become very alluring due to high market goodwill.

4.4.2. TATA MOTORS

- **Share Price**

The shares of Tata Motors Ltd have been range-bound for the past few quarters, but the latest breakout has shifted the short-term reward/risk balance in favor of the bulls.

Table 4.8. Change in Share Price: Tata Motors

Quarters	Share Price	Change (%)
2020-21:		
Q3 - Dec 2020	183.85	100
Q4 - Mar 2021	301.8	164.15
2021-22:		
Q1 - June 2021	339.6	184.71
Q2 - Sep 2021	333.35	181.31
Q3 - Dec 2021	482.4	262.38
Q4 - Mar 2022	433.75	235.92
2022-23:		
Q1 - June 2022	411.8	223.98
Q2 - Sep 2022	404.6	220.07

Figure 4.6. Percentage Change in Share Price: Tata Motors

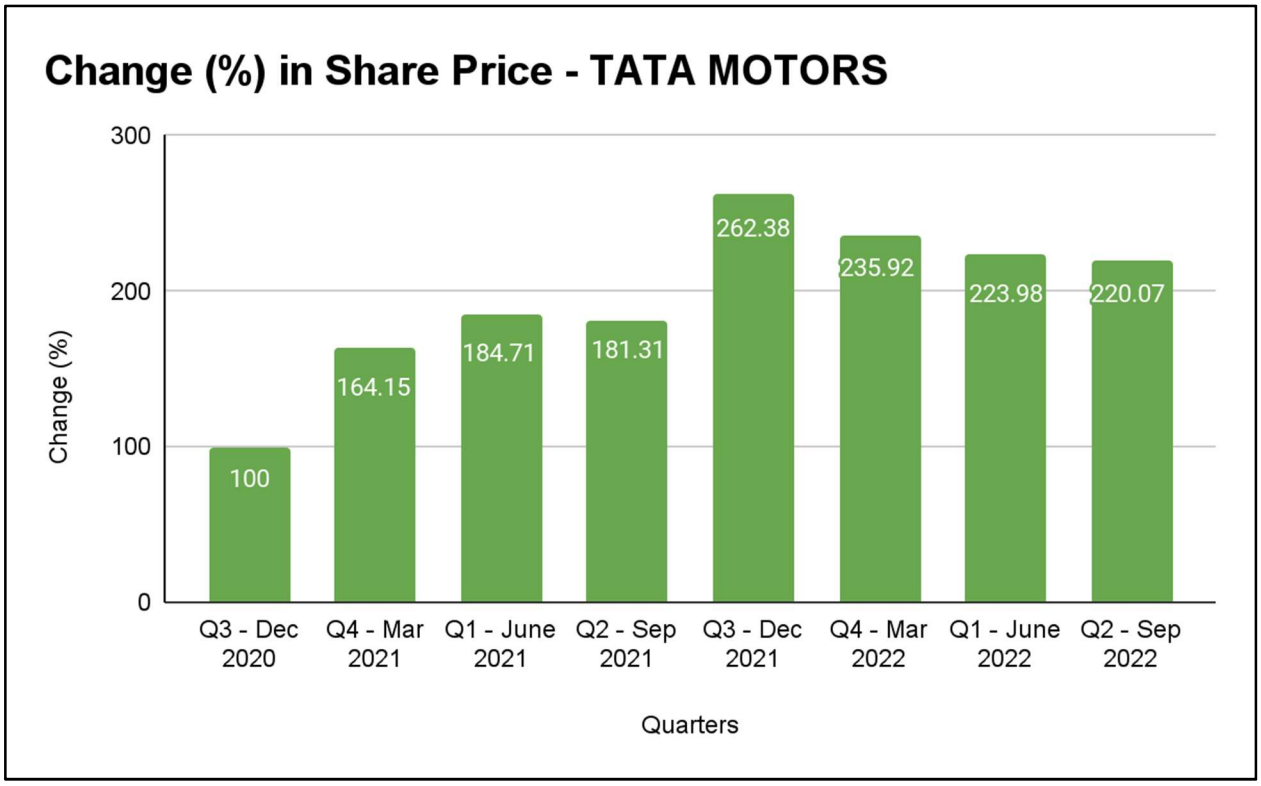
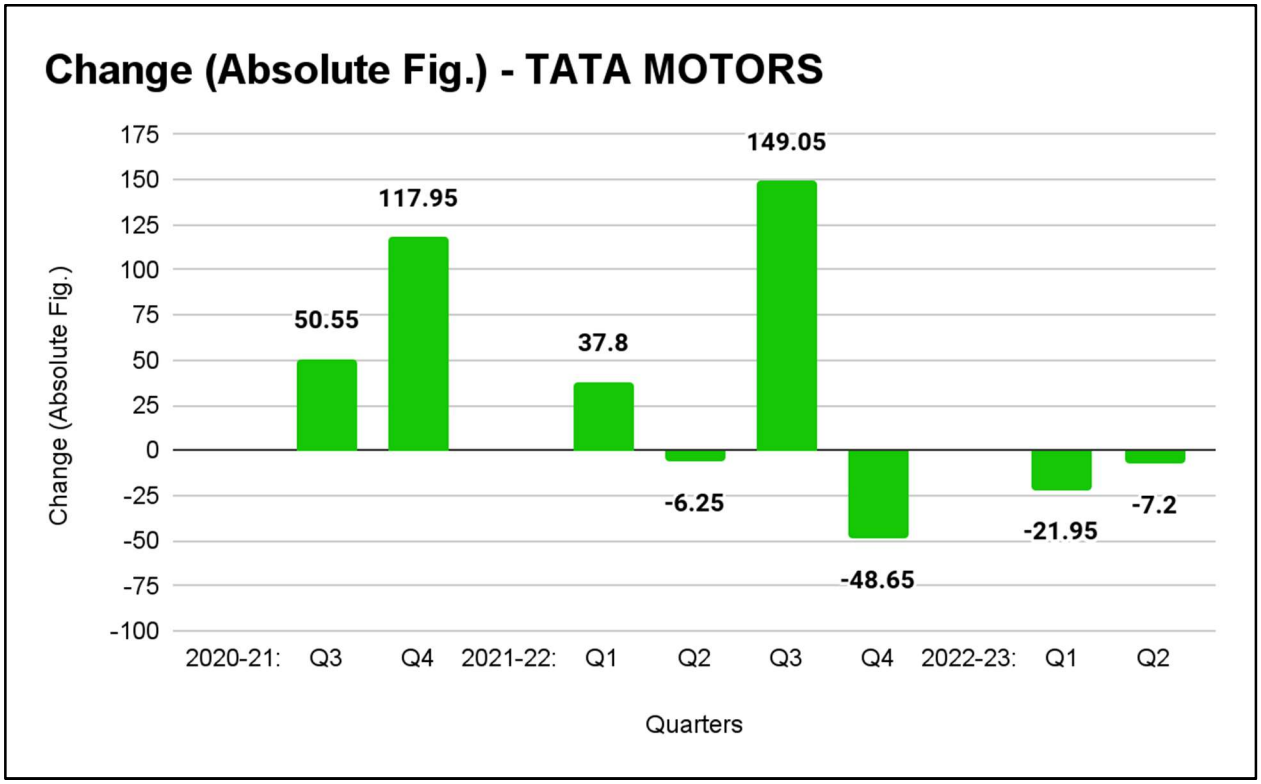


Figure 4.7. Change (Absolute Figure) in Share Price: Tata Motors



- **Quarterly Results**

The quarterly results of Tata Motors Ltd experienced net loss for several quarters. The management of Tata Motors is still devoted to improving the company's market, operational, and financial success through cost-cutting, free cash flow generation, and best-in-class customer service.

Table 4.9. Quarterly Results of Tata Motors

QUARTERLY RESULTS OF TATA MOTORS (in Rs. Cr.)	Dec '20	Mar '21	Jun '21	Sep '21	Dec '21	Mar '22	Jun '22	Sep '22
Sales	75,654	88,628	66,406	61,379	72,229	78,439	71,935	79,611
Expenses	63,521	75,254	61,164	57,262	65,151	70,156	69,522	74,039
Operating Profit	12,133	13,374	5,243	4,117	7,078	8,283	2,413	5,572
Other Income	289	-12,655	584	862	789	189	2,381	1,351
Interest	2,126	2,145	2,203	2,327	2,401	2,381	2,421	2,487
Depreciation	6,129	6,217	6,202	6,123	6,078	6,432	5,841	5,897
Profit before tax	4,167	-7,643	-2,579	-3,472	-612	-341	-3,468	-1,461
Tax %	23%	2%	-68%	-29%	-119%	-222%	-44%	31%
Net Profit	**2,941**	**-7,585**	**-4,450**	**-4,416**	**-1,451**	**-992**	**-4,951**	**-898**

Figure 4.8. Percentage Change in Net Profit/ Loss: Tata Motors

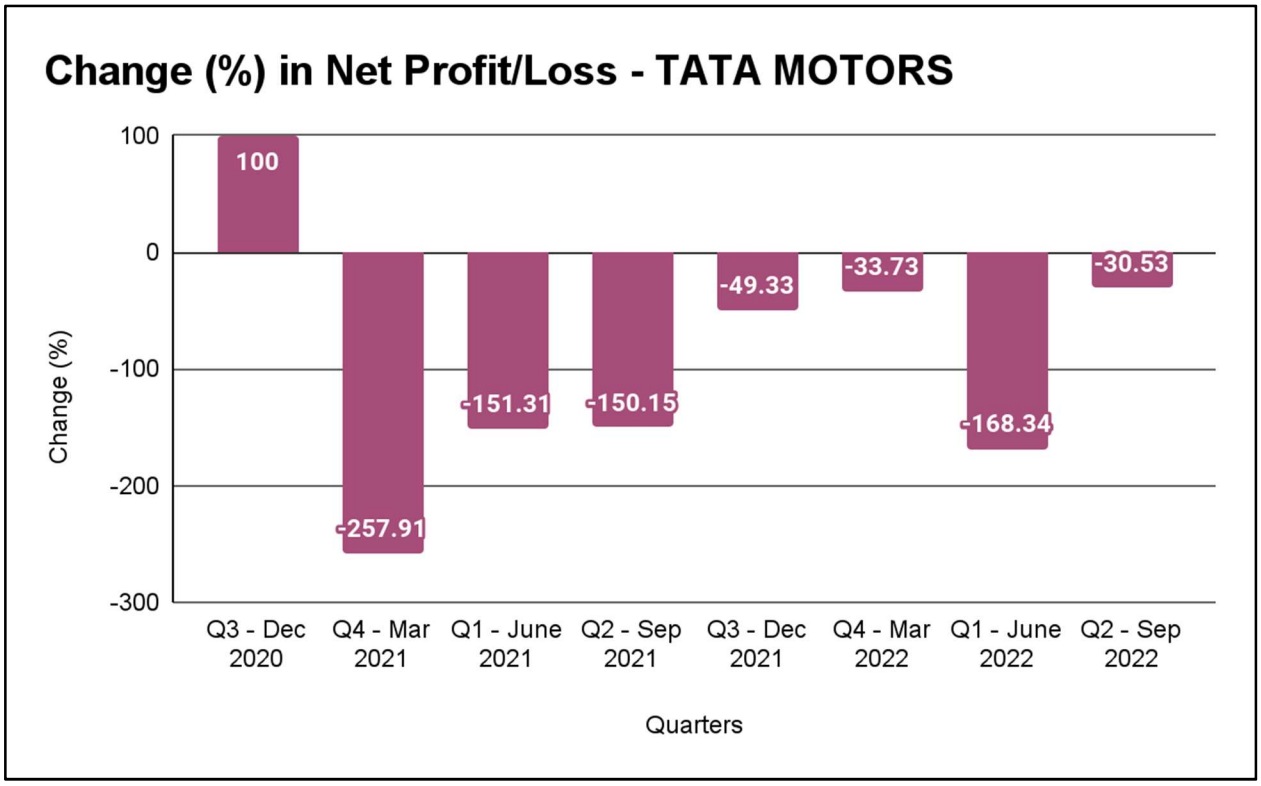
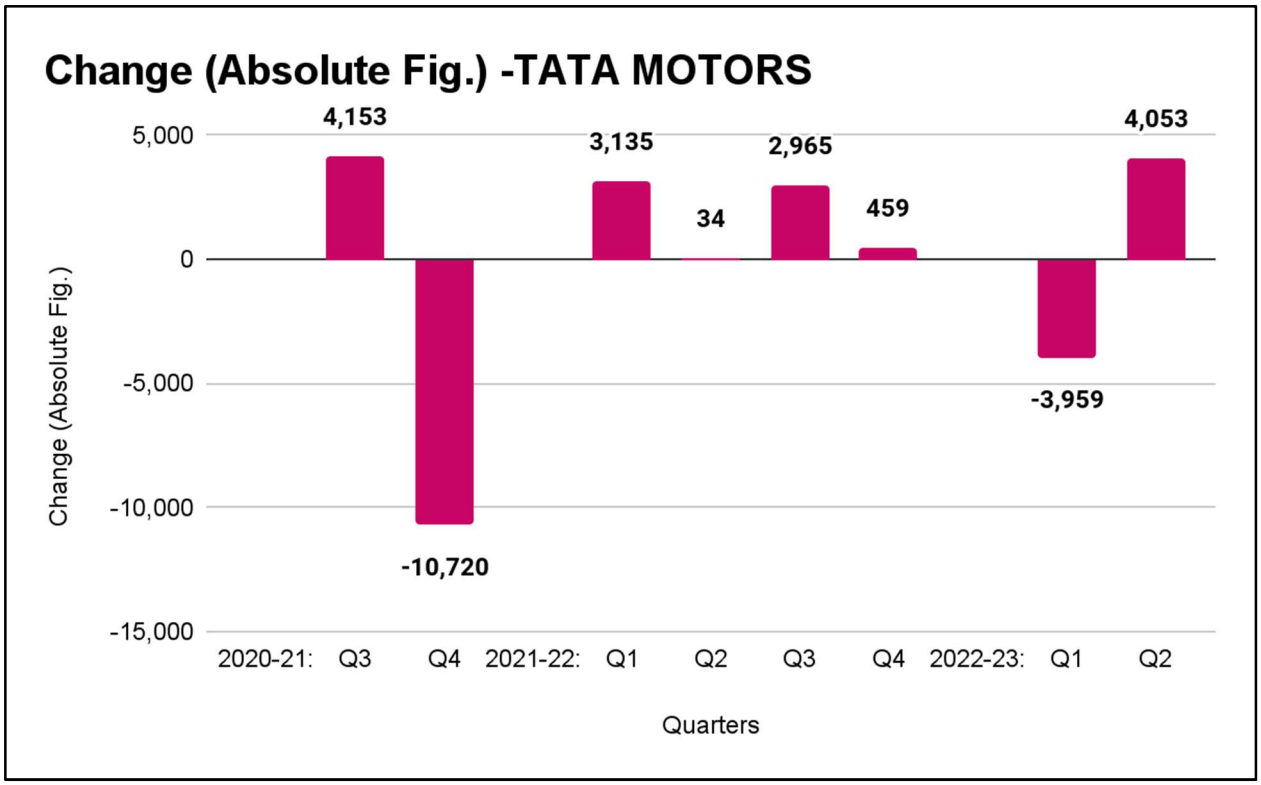


Figure 4.9. Change (Absolute Figure) in Net Profit/ Loss: Tata Motors

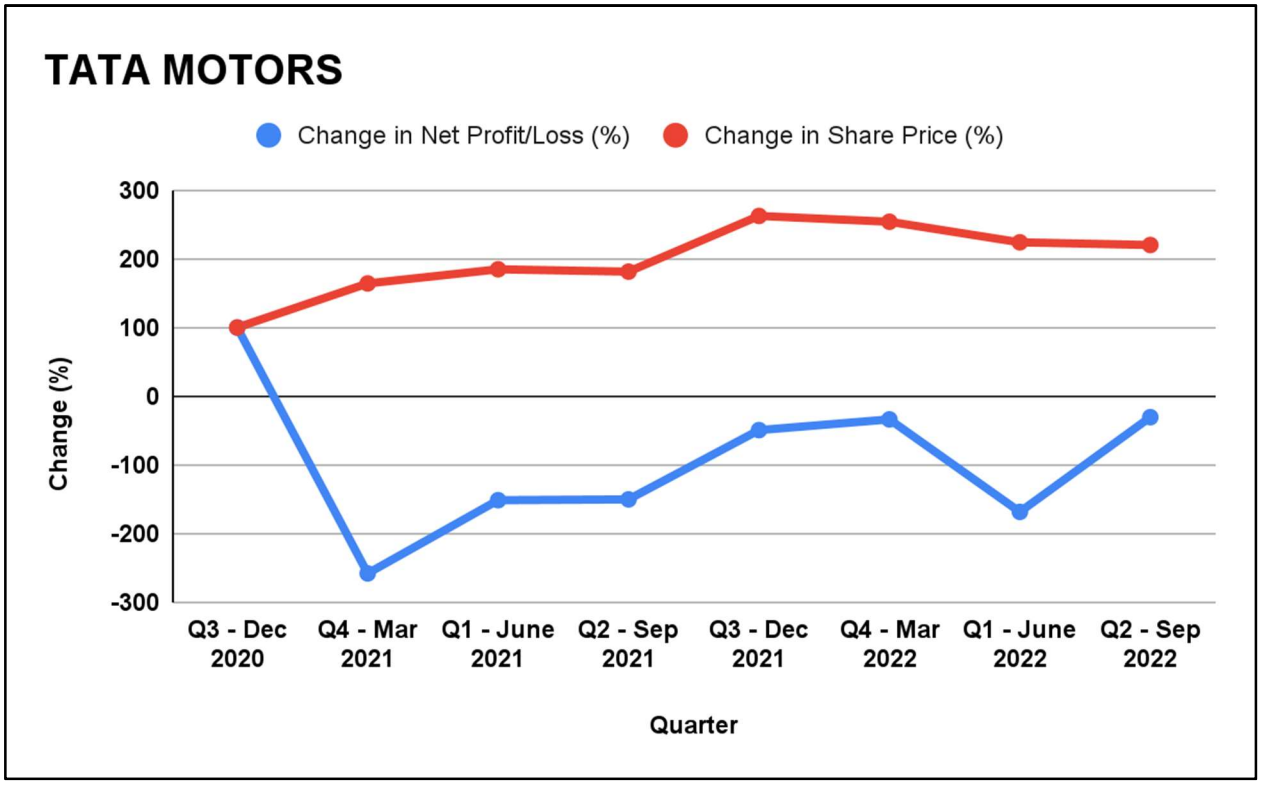


- **Relation Between Net Profit/Loss and Share Price of Tata Motors**

Table 4.10. Relation Between Change in Net Profit/Loss & Change in Share Price: Tata Motors

Quarter	Net Profit/Loss	Change in Net Profit/Loss (%)	Share Price	Change in Share Price (%)
Q3 - Dec 2020	2,941	100	183.85	100
Q4 - Mar 2021	-7,585	-258	301.8	164.15
Q1 - June 2021	-4,450	-151	339.6	184.71
Q2 - Sep 2021	-4,416	-150	333.35	181.31
Q3 - Dec 2021	-1,451	-49	482.4	262.38
Q4 - Mar 2022	-992	-34	433.75	253.92
Q1 - June 2022	-4,951	-168	411.8	223.98
Q2 - Sep 2022	-898	-31	404.6	220.07

Figure 4.10. Relation Between Net Profit/ Loss and Share Price: Tata Motors



Interpretation:
Q4 - March 2021 the company suffered a net loss of 7585 which represents a significant decrease of 258% compared to the previous quarter. The share price increased by 164.15% to reach 301.8. In Q1- June 2021 the company's net loss decreased to 4450, which represents a 151% improvement compared to the previous quarter. The share price continued to rise to 339.6, a 184.71% increase. In Q2-September 2021, the company's net loss decreased slightly into 4416, which represents a 150% improvement compared to the previous quarter. The share price decreased slightly to 333.35, a 181.31% increase compared to the first quarter. In Q3 December 2021, the company's net loss decreased significantly to 1451, which represents a 49% improvement compared to the previous quarter. The share price increased significantly to 482.4, a 262.38% increase compared to the second quarter. In Q4 March 2022, the company's net loss decreased slightly to 992, which represents a 34% improvement compared to the previous quarter. The share price decreased to 433.75, a 253.92% increase compared to the third quarter. In Q1 June 2022, the company's net loss increased slightly to 4951. The share price decreased slightly to 411.8, a 223.98% comparatively increased. In Q2 September 2022 the company's net loss decreased to 898. The share price decreased slightly to 404.6, a 220.07% increase compared to the first quarter.

4.5. Trend Analysis

Trend analysis is a technique for making prospective predictions based on historical data. It enables the comparison of data over a specific time frame and the detection of uptrends, downtrends, and inactivity. Using both recent and historical data, trend analysis is a method for analyzing and forecasting an item's movements. By using trend data to guide your decisions, you can use trend analysis to better your company.

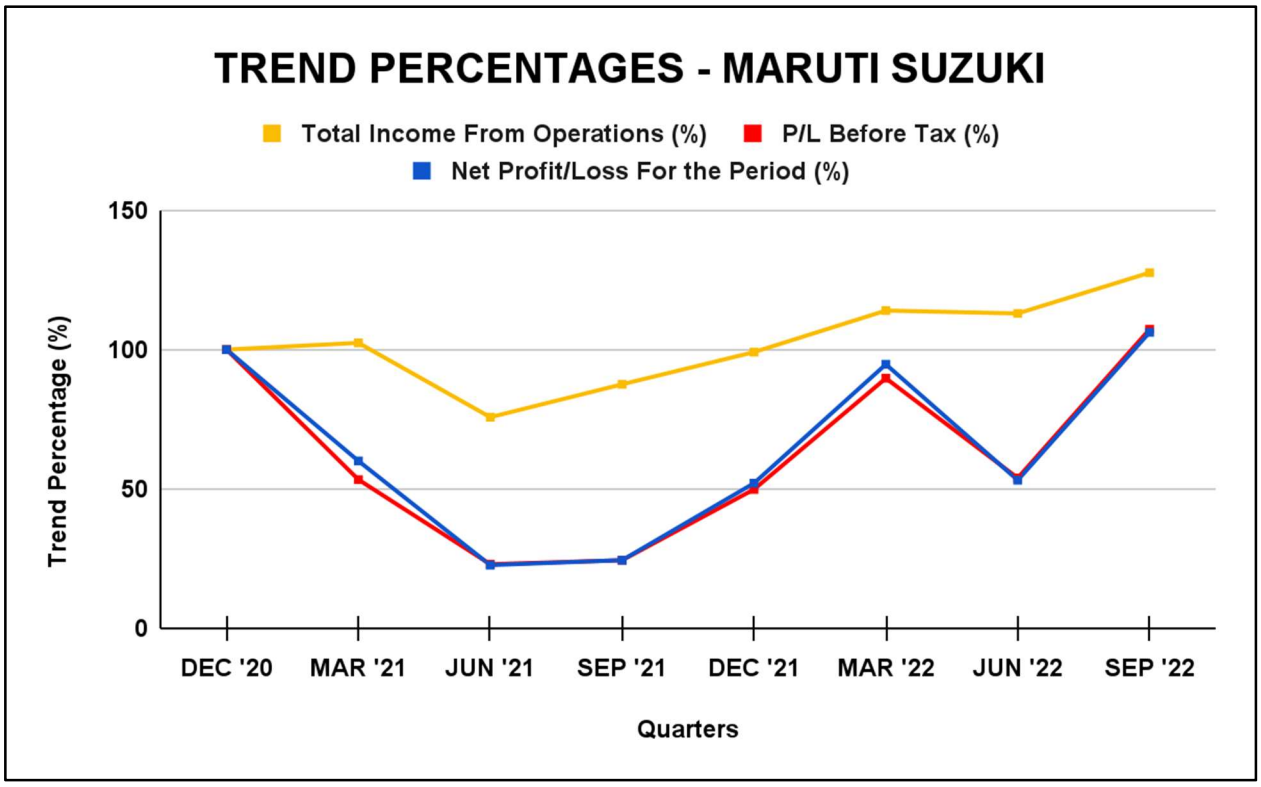
A trend that remains steady and consistent over time portrays consistency and inspires more confidence than the one that is rapidly shifting positions. However, some investors who examine specific external variables causing the radical trend changes may find inconsistent trends to be more appealing. High risk typically comes with big reward potential.

4.5.1. MARUTI SUZUKI

Table 4.11. STATEMENT SHOWING TREND PERCENTAGES: MARUTI SUZUKI

Quarters	Total Income from Operations		Profit/Loss Before Tax		Net Profit/Loss For the Period	
	(Rs.)	(%)	(Rs.)	(%)	(Rs.)	(%)
DEC '20	23,457.80	100	2,449.80	100	1,941.40	100
MAR '21	24,023.70	102.41	1,307.50	53.37	1,166.10	60.06
JUN '21	17,770.70	75.75	563.5	23.01	440.8	22.71
SEP '21	20,538.90	87.55	599	24.45	475.3	24.48
DEC '21	23,246.00	99.09	1,221.80	49.87	1,011.30	52.09
MAR '22	26,740.00	113.99	2,198.00	89.72	1,838.90	94.72
JUN '22	26,499.80	112.96	1,321.80	53.95	1,012.80	53.16
SEP '22	29,930.80	127.59	2,628.30	107.28	2,061.50	106.18

Figure 4.11. Trend Analysis: Maruti Suzuki



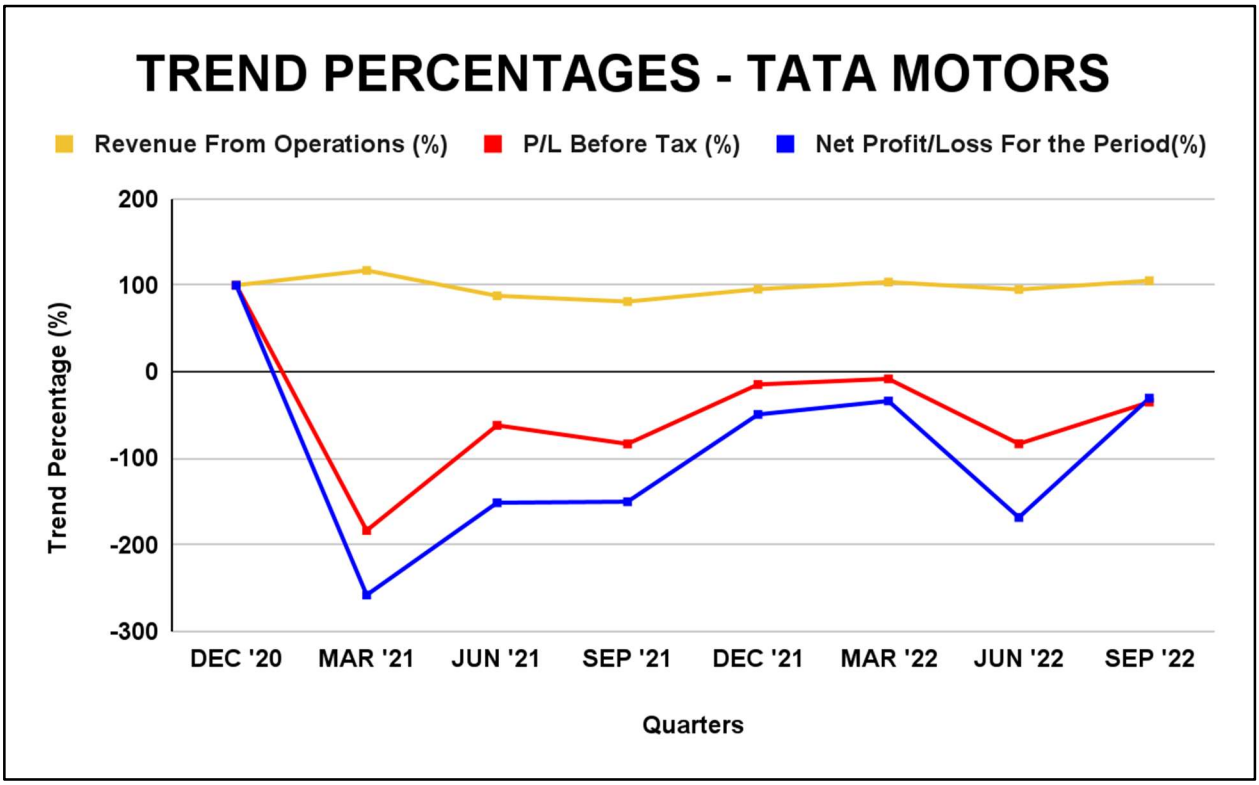
Interpretation:
The total income that the company earned from its operating activities mostly reported an increasing trend except for quarters ending June 2021, September 2021 and December 2021. This was because of the turmoil in the automobile industry which caused the revenue from operations to dip while the income from other operating activities remained almost the same.
The Profit Before Tax (PBT) and the net profit showed almost similar trends. In the third and fourth quarters of the financial year 2021-22, PBT and net profit for the period had an increasing trend. Only during the latest quarter, i.e. the quarter ending September 2022, did the company have a PBT and net profit with significant growth.

4.5.2. TATA MOTORS

Table 4.12. STATEMENT SHOWING TREND PERCENTAGES: TATA MOTORS

Quarters	Revenue from Operations		P/L Before Tax		Net Profit/Loss For the Period	
	(Rs.)	(%)	(Rs.)	(%)	(Rs.)	(%)
DEC '20	75,654	100	4,167	100	2,941	100
MAR '21	88,628	117.14	-7,643	-183.41	-7,585	-257.91
JUN '21	66,406	87.77	-2,579	-61.89	-4,450	-151.31
SEP '21	61,379	81.13	-3,472	-83.32	-4,416	-150.15
DEC '21	72,229	95.47	-612	-14.68	-1,451	-49.33
MAR '22	78,439	103.68	-341	-8.18	-992	-33.73
JUN '22	71,935	95.08	-3,468	-83.22	-4,951	-168.34
SEP '22	79,611	105.23	-1,461	-35.06	-898	-30.53

Figure 4.12. Trend Analysis: Tata Motors



Interpretation:

The total income that the company earned from its operating activities mostly reported an increasing trend except for quarters ending June 2021, September 2021, December 2021 and June 2022. The Profit Before Tax (PBT) and the net profit showed almost similar trends. In the third and fourth quarters of the financial year 2021-22, PBT and net profit for the period had a decreasing trend. Even during the latest quarter, i.e. the quarter ending September 2022, did the company have a PBT and net profit with significant decline.

4.6. Ratio Analysis

Ratio analysis is the study or analysis of the individual items listed in the company's financial records. It can be used to evaluate a number of aspects of a business, including revenue, liquidity, solvency, and operational effectiveness. In order to gather crucial information for analyzing the financial performance of the business, analysts rely mainly on the current and previous financial statements. The information or data gathered in this way during the study is useful in determining whether a company's financial situation is improving or deteriorating.

In this study profitability ratios like net profit ratio, operating profit ratio, ROCE etc. are used to find the profitability of the companies.

4.6.1. Profitability Ratios

Using information from a particular moment in time, profitability ratios are a class of financial indicators that are used to evaluate a company's capacity to generate profits in relation to its revenue, operating costs, balance sheet assets, or shareholders' equity over time. When compared to results of other companies, the company's past success, or the industry average, higher ratio results often provide much more information.

1. **NET PROFIT RATIO**

$$\textbf{Net Profit Ratio} = \frac{\textbf{Net Profit After Tax}}{\textbf{Revenue From Operations (Net Sales)}} \times 100$$

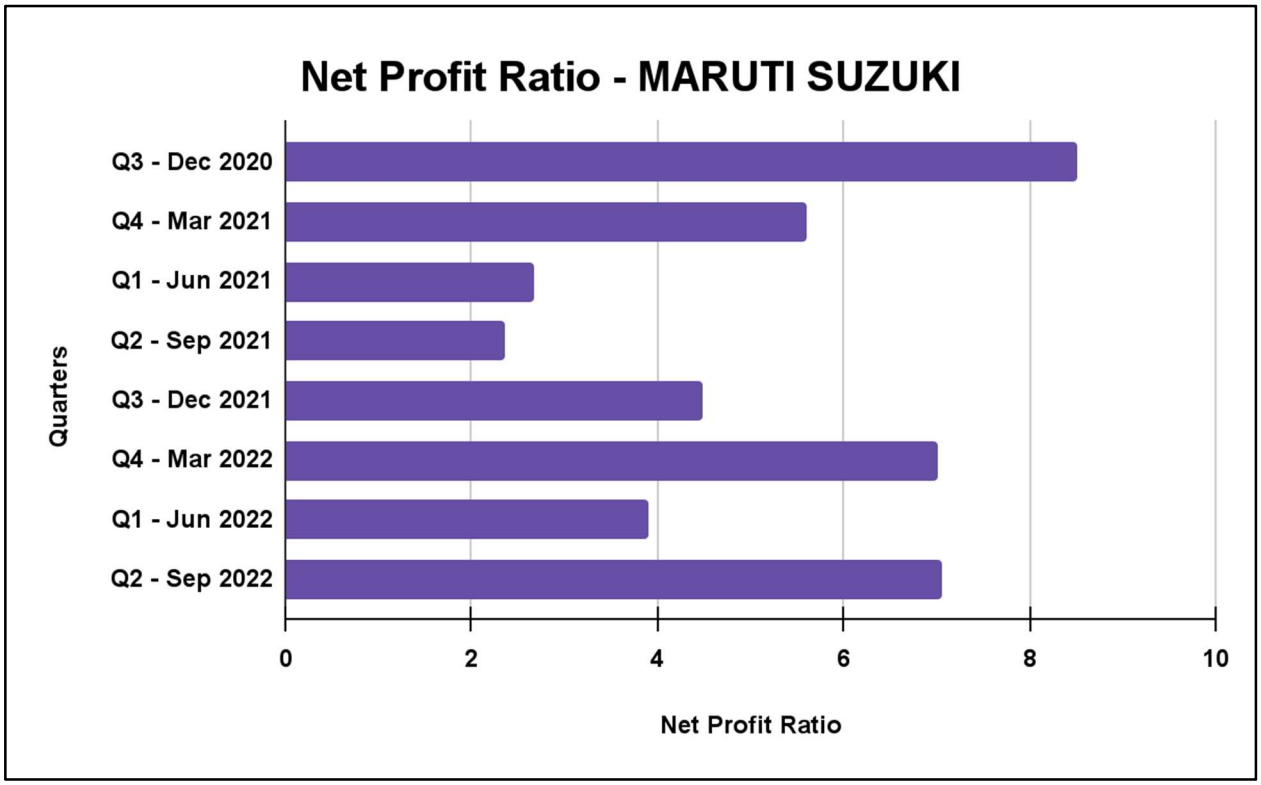
Net profit ratio establishes the relationship between the net profit earned by a concern and the revenue earned from the operating activities. A higher net profit ratio indicates the company's better profitability while a lower ratio indicates its financial inefficiency.

MARUTI SUZUKI:

Table 4.13. Statement Showing Net Profit Ratio: Maruti Suzuki

Quarters	Net Profit	Sales	Net Profit Ratio (%)
Q3 - Dec 2020	1,997	23,471	8.51
Q4 - Mar 2021	1,241	24,034	5.61
Q1 - Jun 2021	475	17,776	2.67
Q2 - Sep 2021	487	20,551	2.36
Q3 - Dec 2021	1,042	23,253	4.48
Q4 - Mar 2022	1,876	26,749	7.01
Q1 - Jun 2022	1,036	26,512	3.91
Q2 - Sep 2022	2,112	29,942	7.05

Figure 4.13. Net Profit Ratio: Maruti Suzuki



Interpretation:

The net profit ratio of the quarter ending December 2020 was 8.51%. The ratio gradually decreases over the coming quarters until the quarter ending December 2021 where the ratio starts showing a small increasing trend. It later dips during the first quarter of the financial year 2022-23, the quarter ending June 2022. This was due to the company earning comparatively lesser profit despite having similar sales to the previous quarter. At the end of the second quarter of the financial year 2022-23, the net profit ratio stands at a percentage of 7.05%. During this quarter the company earns a much higher profit comparatively.

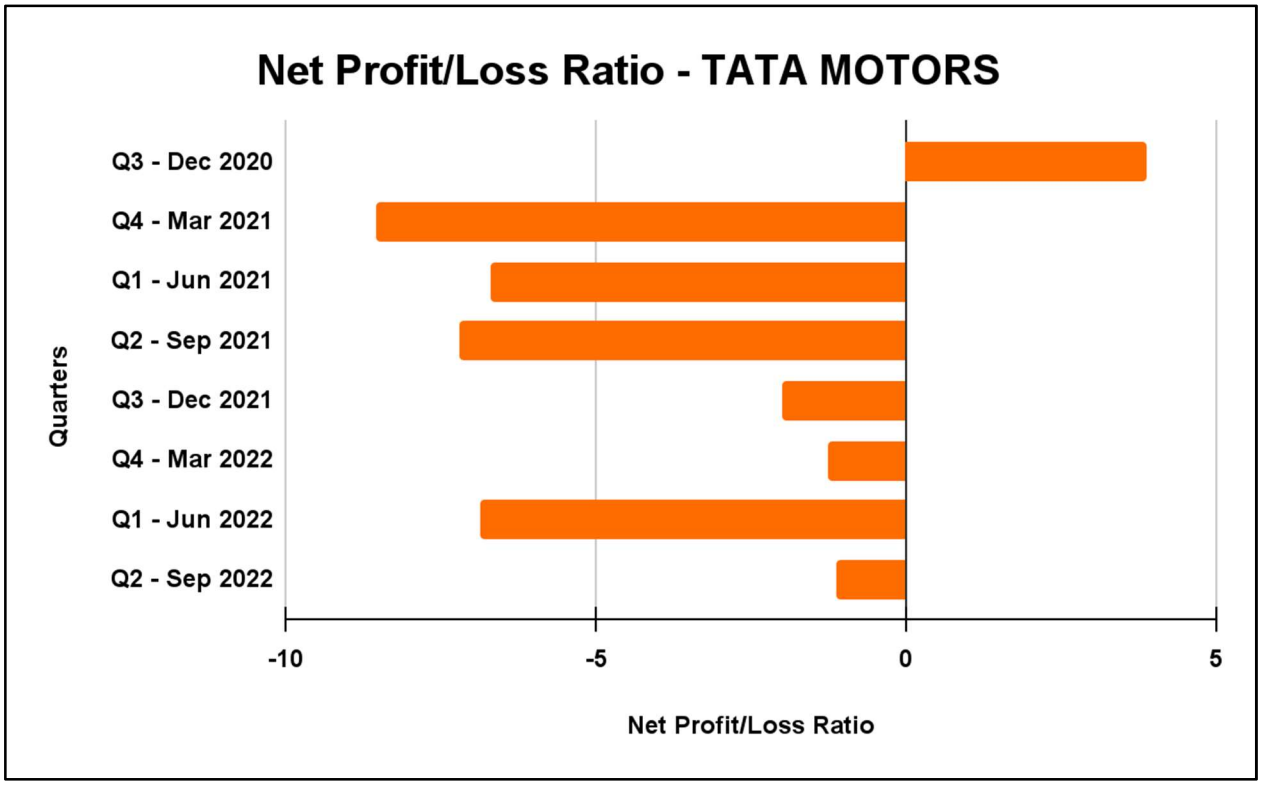
TATA MOTORS:

Table 4.14. Statement Showing Net Profit/ Loss Ratio: Tata Motors

Quarters	Net Profit/Loss	Sales	Net Profit/Loss Ratio (%)
Q3 - Dec 2020	2,941	75,654	3.88
Q4 - Mar 2021	-7,585	88,628	-8.55

Q1 - Jun 2021	-4,450	66,406	-6.70
Q2 - Sep 2021	-4,416	61,379	-7.19
Q3 - Dec 2021	-1,451	72,229	-2.01
Q4 - Mar 2022	-992	78,439	-1.26
Q1 - Jun 2022	-4,951	71,935	-6.88
Q2 - Sep 2022	-898	79,611	-1.12

Figure 4.14. Net Profit Ratio: Tata Motors



Interpretation:

Tata Motors Ltd experienced net loss for seven out of the eight quarters that were considered for the analysis. While they earned a net profit of Rs. 2,941 crores during the quarter ending December 2020 with a net profit ratio of 3.88%, they incurred net loss for the next few quarters. The net loss ratio for the fluctuated over the quarters without much of a pattern. The latest quarter, that is the quarter ending September 2022 recorded the least net loss ratio, implying that the company is recovering. The loss was incurred because of the increasing expenses like interest, depreciation, other operating expenses etc.

2. OPERATING PROFIT RATIO

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Revenue From Operations}} \times 100$$

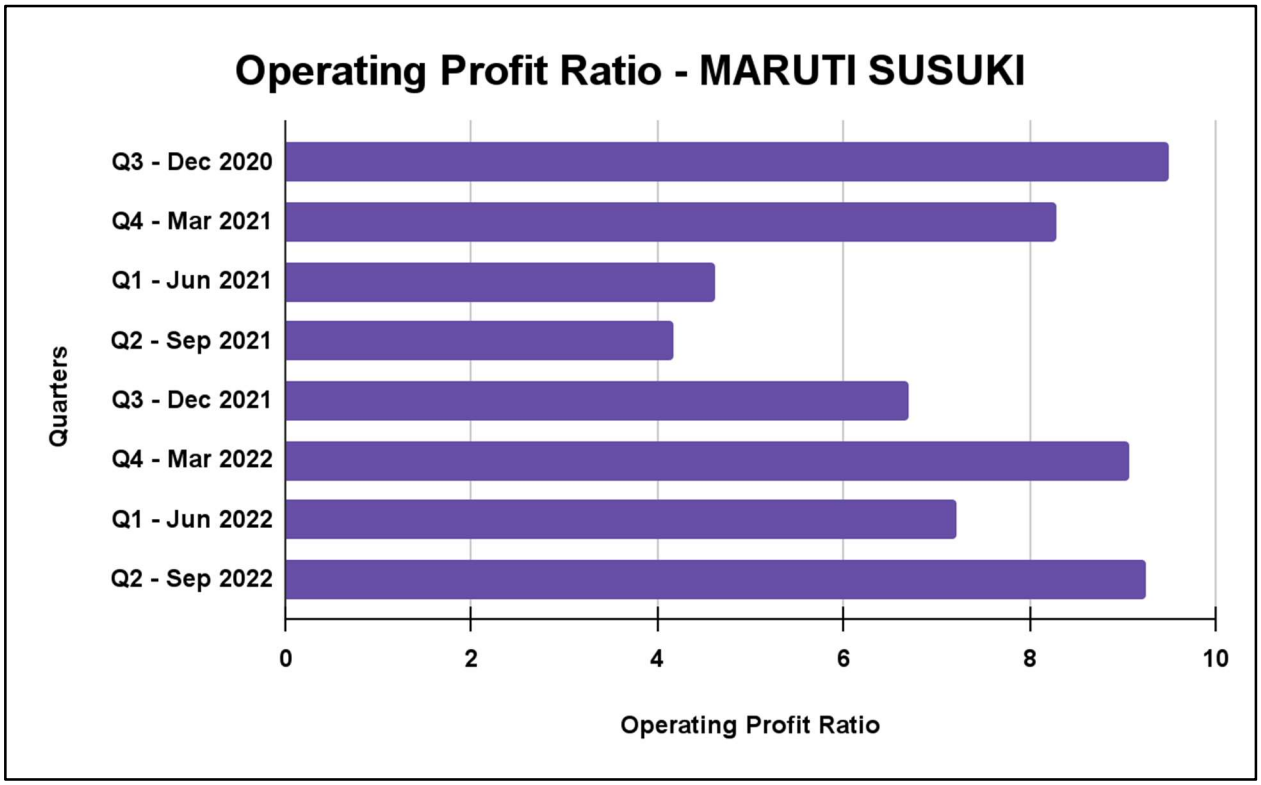
Operating profit ratio establishes the relationship between income from operating activities earned by a concern and the net sales of the same. This ratio is calculated in order to determine the operational efficiency of a business. Comparatively, operating profit ratio is considered a better indicator of operational efficiency than the net profit ratio as the net profit ratio ignores the non-operating incomes and expenses. Non-operating incomes and expenses are significant in finding the operational efficiency of a business because these non-operating activities equally contribute to a business like the operational activities.

MARUTI SUZUKI:

Table 4.15. Statement Showing Operating Profit Ratio: Maruti Suzuki

Quarters	Operating Profit	Sales	Operating Profit Ratio (%)
Q3 - Dec 2020	2,228	23,471	9.49
Q4 - Mar 2021	1,995	24,034	8.30
Q1 - Jun 2021	819	17,776	4.61
Q2 - Sep 2021	857	20,551	4.17
Q3 - Dec 2021	1,562	23,253	6.71
Q4 - Mar 2022	2,429	26,749	9.08
Q1 - Jun 2022	1,915	26,512	7.22
Q2 - Sep 2022	2,771	29,942	9.25

Figure 4.15. Operating Profit Ratio: Maruti Suzuki



Interpretation:

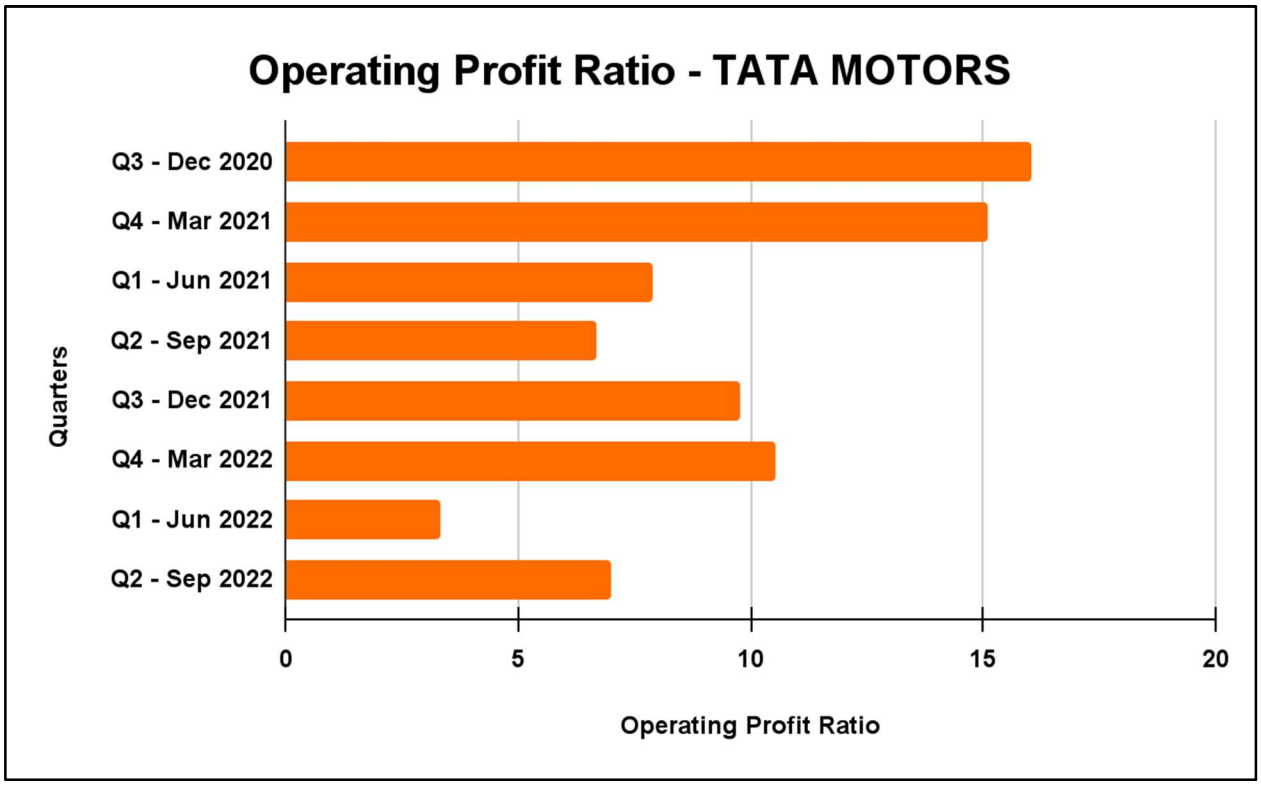
The operating profit ratio of Maruti Suzuki India Ltd during the quarter ending December 2020 was 9.49%, the highest out of the eight quarters that were taken for analysis. For the next few quarters the operating profit ratio of the company declined due to the decrease in sales and other income from operations which eventually led to decrease in operating profit. The ratio hit the lowest during the second quarter of the financial year 2021-22 at a percentage of 4.17. But during the next quarter there was an increase of Rs. 705 crores in the operating profit which resulted in the increase of operating profit ratio to 6.71%. At the end of the last quarter of the FY 2021-22, the operating profit was at 9.08% which later decreased to 7.22% in the first quarter of the FY 2022-23. In the second quarter of the same financial year, the company earned the highest operating profit, resulting in an increase in operating profit ratio to 9.25%.

TATA MOTORS:

Table 4.16. Statement Showing Operating Profit Ratio: Tata Motors

Quarters	Operating Profit	Sales	Operating Profit Ratio (%)
Q3 - Dec 2020	12,133	75,654	16.03
Q4 - Mar 2021	13,374	88,628	15.09
Q1 - Jun 2021	5,243	66,406	7.89
Q2 - Sep 2021	4,117	61,379	6.71
Q3 - Dec 2021	7,078	72,229	9.79
Q4 - Mar 2022	8,283	78,439	10.55
Q1 - Jun 2022	2,413	71,935	3.35
Q2 - Sep 2022	5,572	79,611	6.99

Figure 4.16. Operating Profit Ratio: Tata Motors



Interpretation:
Tata Motors Ltd earned an operating profit of Rs. 12,133 crores during the quarter ending December 2020 which resulted in an operating profit ratio of 16.03%. In the following quarter, the operating profit ratio was 15.09% even when the company earned an operating profit of Rs. 13,374 crores. This was due to the proportionate increase in the sale of the company. In the next few quarters the company experienced a decline in its operating profit ratio. But it gradually increased during the third and fourth quarters of the financial year 2021-22, 9.79% and 10.55% respectively. The operating profit ratio hit the lowest during the quarter ending June 2022 at 3.35%. It increased to 6.99% in the next quarter, i.e., during the second quarter of the financial year 2022-23.

3. EARNINGS PER SHARE (EPS)

$$\text{EPS} = \frac{\text{Earnings After Interest, Tax and Preference Dividend}}{\text{Number of Equity Shares}}$$

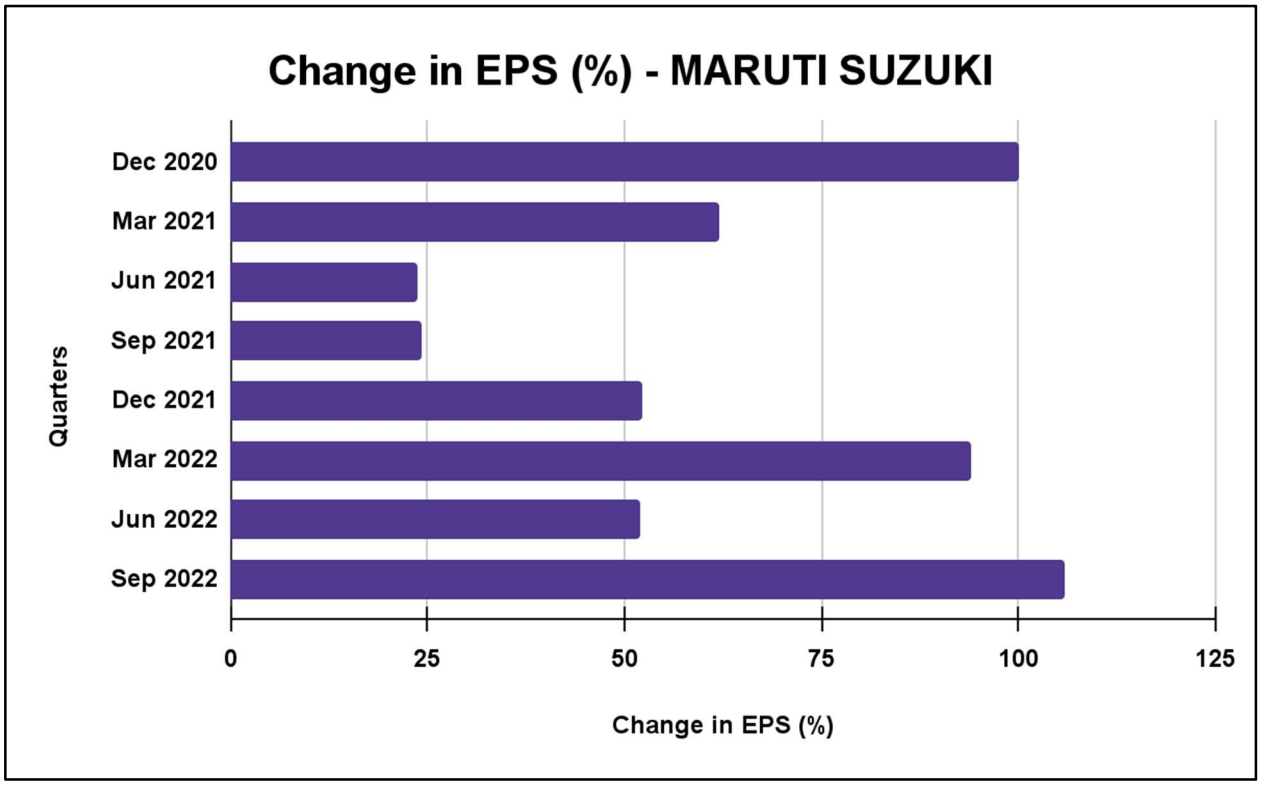
The portion of a company's profit that is allocated to each piece of stock is known as earnings per share. That is, this ratio is used to measure the profit available to equity shareholders per share. EPS plays a significant role in determining the market price of the equity share as it shows the capacity of the company to pay dividend to its equity shareholders.

MARUTI SUZUKI:

Table 4.17. Change in EPS of Maruti Suzuki

Quarters	EPS	Change in EPS (%)
Dec 2020	66.1	100
Mar 2021	41.09	62.16
Jun 2021	15.72	23.78
Sep 2021	16.12	24.38
Dec 2021	34.49	52.17
Mar 2022	62.1	93.94
Jun 2022	34.3	51.89
Sep 2022	69.93	105.79

Figure 4.17. Change in EPS: Maruti Suzuki



Interpretation:

In December 2020 EPS of Maruti Suzuki was 9.41. The EPS continued to increase in the subsequent quarters, indicating an improvement in the company's profitability. The largest increase in EPS was seen in the quarter ended March 2022, which was increased by 93.94%. The EPS continued to increase in the subsequent quarters, with a significant in the EPS of 105.79% seen in the quarter ended September 2022. These positive EPS values suggest that the company was profitable during these quarters and was able to increase its earnings on a per-share basis.

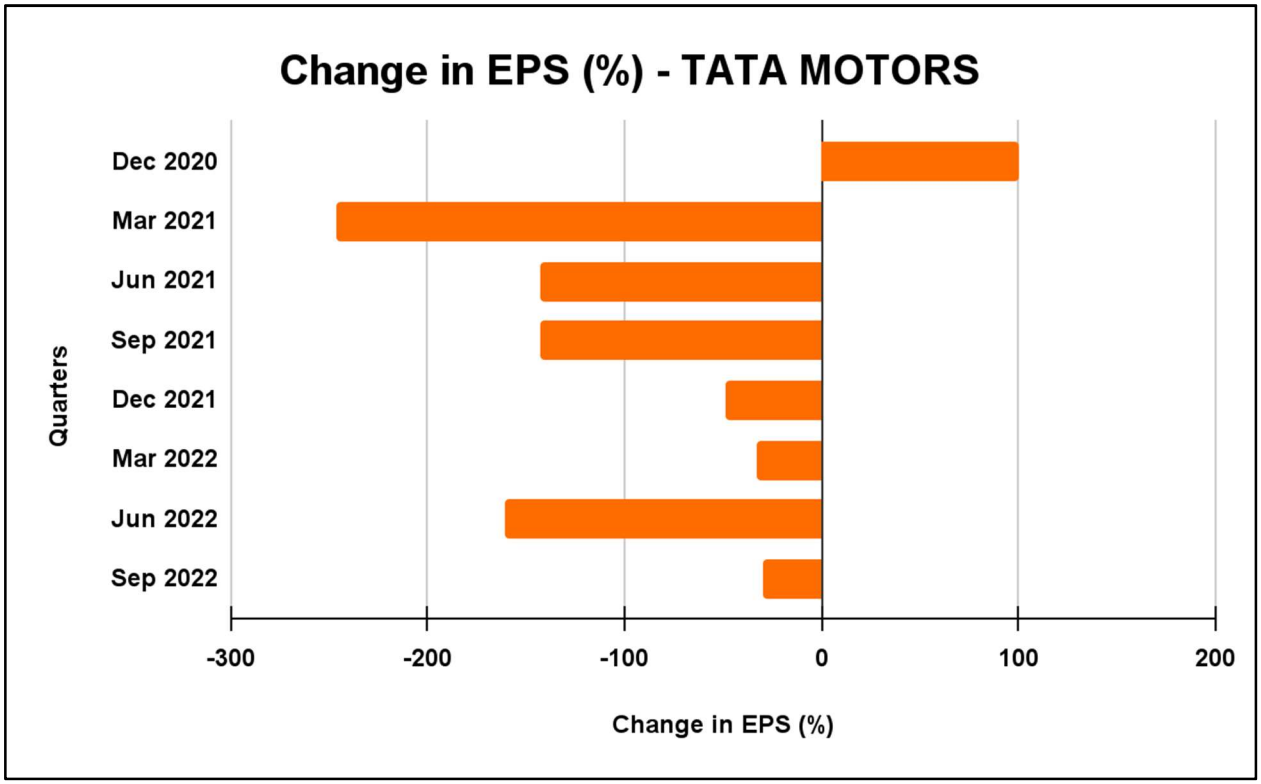
TATA MOTORS:

Table 4.18. Change in EPS of Tata Motors

Quarters	EPS	Change in EPS (%)
Dec 2020	9.41	100
Mar 2021	-22.91	-246.46
Jun 2021	-13.41	-142.51

Sep 2021	-13.38	-142.18
Dec 2021	-4.57	-48.56
Mar 2022	-3.11	-33.04
Jun 2022	-15.08	-160.25
Sep 2022	-2.84	-30.18

Figure 4.18. Change in EPS: Tata Motors



Interpretation:

In December 2020 EPS of Tata Motors was 9.41. However, in the subsequent quarters, the EPS turned negative, indicating losses incurred by the company. The largest decline in EPS was seen in the quarter ended March 2021, which decreased by 246.26%. The EPS continued to remain negative in the subsequent quarters, with a decline in EPS ranging from -30.18% to -160.25%. The negative EPS values suggest that the company was not profitable during these quarters.

4.7. Shareholding Pattern

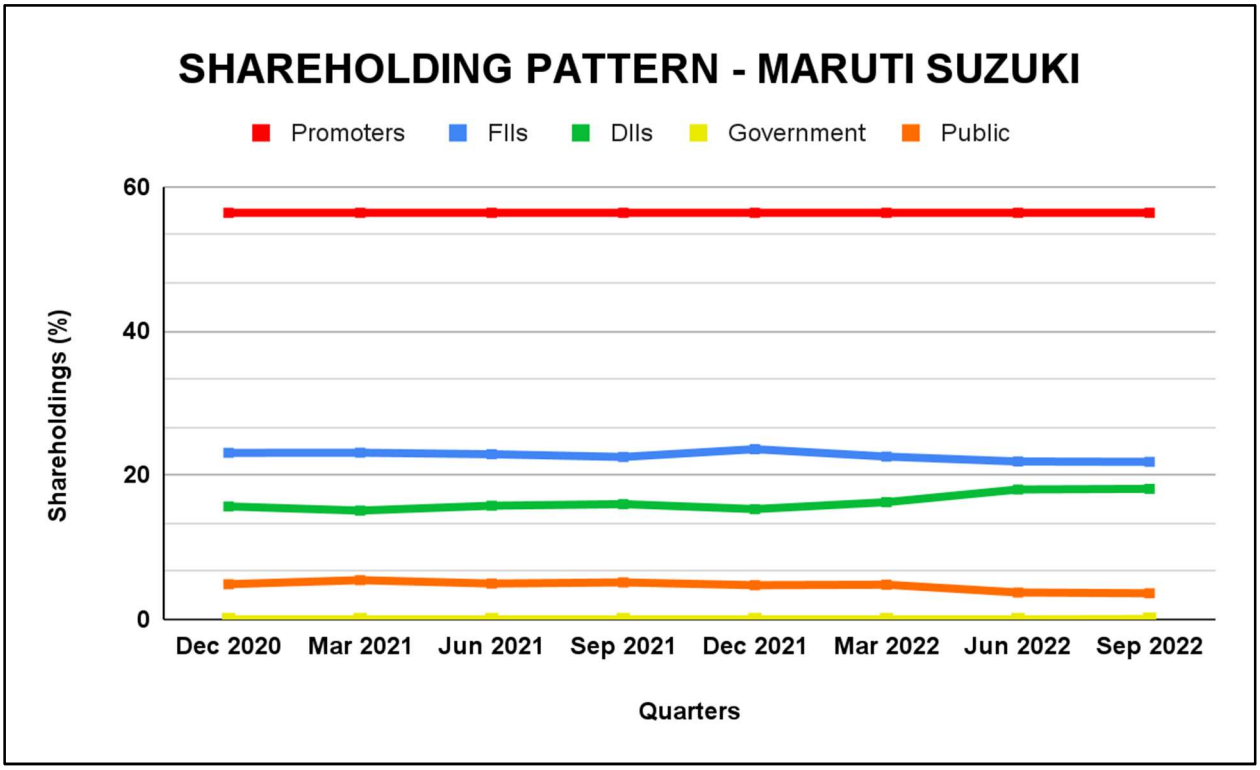
Shareholding patterns reflect a company's share ownership structure. The shareholding pattern provides insight into how a company's shares are allocated among different entities. Shareholding patterns are important for trading because they provide traders with information about the financial health of a business. Every quarter, listed businesses are required to post a statement of their shareholding pattern. The reports are available for current and prospective investors to review in order to evaluate the capital structure of the company and make critical investment decisions.

4.7.1. MARUTI SUZUKI

Table 4.19. Shareholding Pattern: Maruti Suzuki

Investors	Dec 2020	Mar 2021	Jun 2021	Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022
Promoters	56.37	56.37	56.37	56.37	56.37	56.37	56.37	56.37
FIIs	23.09	23.11	22.9	22.52	23.6	22.57	21.89	21.84
DIIs	15.66	15.08	15.76	15.98	15.29	16.25	18.01	18.1
Government	0	0	0	0	0	0	0	0.06
Public	4.88	5.44	4.97	5.13	4.74	4.81	3.73	3.62

Figure 4.19. Shareholding Pattern: Maruti Suzuki



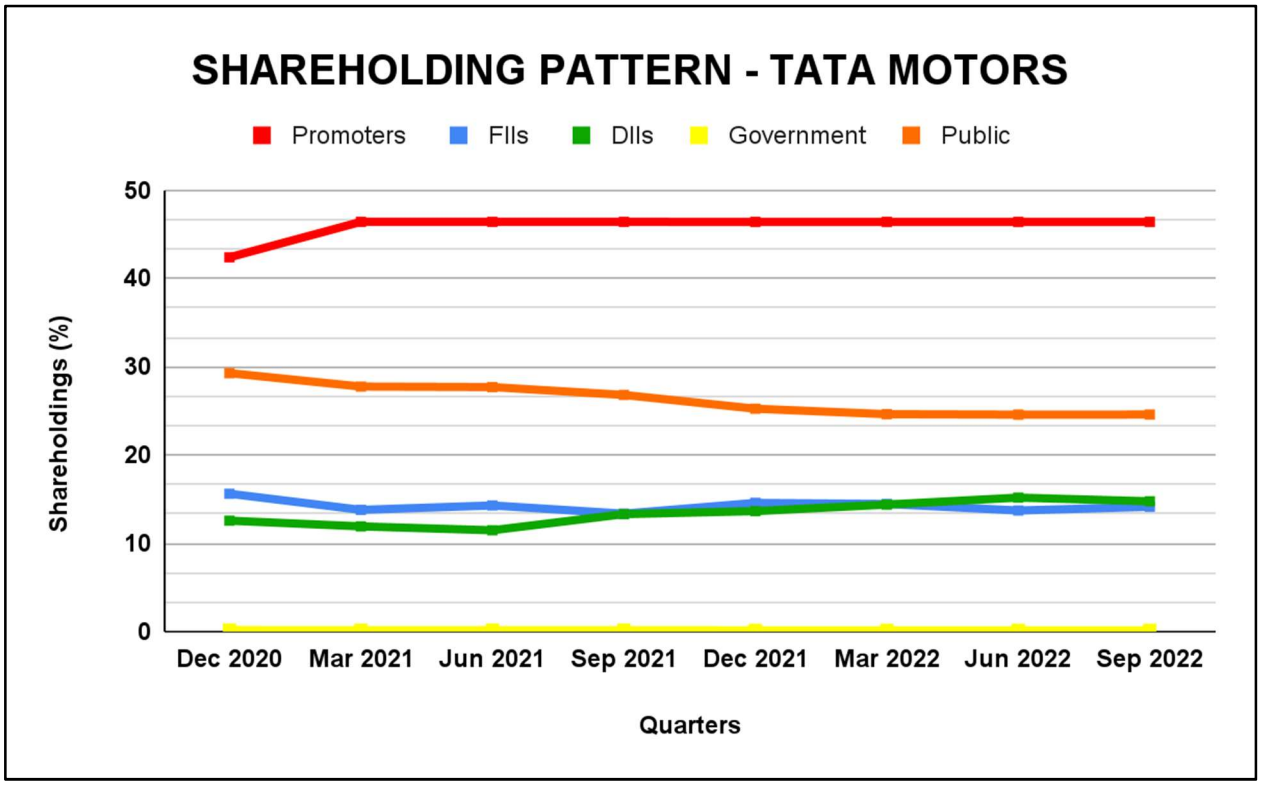
Interpretation:
Promoters' shareholding remains constant at 56.37% throughout the period. The FIIs percentage holdings fluctuates overtime, with a peak of 23.6% in December 2021 and a low of 21.84% in September 2022.The DII's category their percentage holding fluctuates over time, with a peak of 18.1% in September 2022. The Government category denotes the portion of the corporation that is held by the Indian government, which is a negligible 0.06 percent as of the data from September 2022. Furthermore, the percentage holdings of the public fluctuate overtime, with a peak of 5.44% in March 2021 and a decline to 3.62% in September 2022.

4.7.2. TATA MOTORS

Table 4.20. Shareholding Pattern: Tata Motors

Investors	Dec 2020	Mar 2021	Jun 2021	Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022
Promoters	42.39	46.41	46.41	46.41	46.4	46.4	46.4	46.4
FIIs	15.61	13.78	14.28	13.35	14.57	14.45	13.71	14.13
DIIs	12.56	11.91	11.47	13.3	13.64	14.38	15.17	14.75
Government	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14
Public	29.27	27.75	27.69	26.8	25.24	24.62	24.57	24.58

Figure 4.20. Shareholding Pattern: Tata Motors



Interpretation:

In the promoter's category, with a peak of 46.41% from March to June 2021 and a subsequent fall to 46.4% from December 2021 to September 2022, their holding percentage varies modestly over time. The FII's category their holding percentage varies over time, peaking at 15.61% in December 2020 and falling to 13.71% in June 2022. In DII their holdings as a percentage change through time, peaking at 15.17% in June 2022. The Government category shows how much of the business is held by the Indian government, which, during the course of the time, ranged from 0.14% to 0.16%. Furthermore, the percentage holdings of the public fluctuate over time, with a peak of 29.27% in December 2020 and decline to 24.58% in September 2022.

CHAPTER 5
FINDINGS, SUGGESTIONS AND CONCLUSION

5.1. Findings

5.1.1. Maruti Suzuki

- The correlation between the quarterly results and share price of the company is 0.402 which indicates a moderate degree of correlation between the two variables.
- When the quarterly results show an increasing tendency the share price of the company also shows a moderate degree of increase.
- The total income from operating activities increased by a certain percentage and therefore there is a huge growth in the profit levels of the company.
- During different quarters the share price varies according to the ups and downs in the profit levels
- Generally, there is a direct relationship between profit and share price but there are exceptions in some quarters.
- During Q1 - June 2021, Q2 - September 2021 and Q1 - June 2022 there is an indirect relationship between profit and share price.
- Profit Before Tax and Net Profit have a positive relationship.
- Total income from operations has increased in most of the quarters except for the quarters ending June, September and December 2021.
- PBT and Net Profit varies based on the total income from operations.
- The highest net profit ratio is in the quarter ending December 2021 and the lowest is in September 2021.
- The highest net profit ratio indicates that the company has earned a high profit and the lowest profit ratio indicates that the company has earned less profit.
- The highest Operating Profit Ratio is in the quarter ending December 2020 and the lowest is in the quarter ending September 2021.
- Operating Profit Ratio indicates how much the company has earned the operating profit. It is based on the revenue earned from the operating activities.
- The highest EPS is in the quarter ending March 2022. An increase in the EPS level indicates that the company is profitable.
- Promoters shareholding pattern remains constant throughout the 8 quarters and it has the highest volume of shares.
- Government also remains in a constant shareholding pattern except in the quarter September 2022 and it has the lowest volume of shares.

5.1.2. Tata Motors Ltd

- The correlation between the quarterly results and share price of Tata Motors is -0.181 which indicates that there is a low negative correlation between the two variables.
- Even when the quarterly results show a decreasing trend the share price increases.
- The total expenses increased by a certain percentage and the company experienced a net loss.
- The reason for the loss is that the total expenses are more than that of total income.

- Even when the company experienced loss during different quarters, the share price of the company increased.
- The reason for the increase of share price is because of the brand image that the company has gained over the years.
- The total income from operations has increased in most of the quarters except for the quarters June 2021, September 2021, December 2021 and June 2022.
- Loss before tax and Net loss varies based on the total income from operations.
- The company has earned profit only for the quarter ending December 2020.
- As the company has been incurring loss for the previous seven quarters they cannot declare any dividend. Therefore, there is no dividend payout.
- The continued net loss ratio indicates that the company has been experiencing huge losses.
- The operating profit of the company has increased due to the increase in sales which results in a hike in the operating profit ratio.
- The highest operating profit ratio is in the quarter ending December 2020 and the lowest operating ratio is in the quarter ending June 2022.
- As the company does not have any profit, the EPS are negative.
- Decrease in EPS level indicates that the company is not profitable.
- Promoters having the highest volume of shares than other shareholders and having slight changes in the holding percentage over different quarters.
- Government having the lowest volume of shares among the other shareholders and their holding percentage is decreasing over different quarters.

5.2. Suggestions

- The study reveals that the share prices are mostly dependent on the performance of the companies. Therefore, the companies must try to increase its profits. The increase in profit will lead to an increase in share price. This will eventually result in the increase in the market capitalization of the companies.

- The promoters are the major shareholders in both the companies. We can see that throughout the eight quarters their shareholding pattern does not have any significant changes. This is because they are unwilling to give up their shares. This helps the public to have more confidence in the companies.

- Similarly, government shareholding in both the companies almost remains the same, thus increasing the confidence in the general public.

5.3. Conclusion

The study 'A STUDY ON THE RELATIONSHIP BETWEEN QUARTERLY RESULTS AND MOVEMENT IN SHARE PRICE IN SELECTED COMPANIES IN THE AUTOMOBILE INDUSTRY' revealed that publishing of quarterly results which shows strong earnings usually results in positive movements in the stock market. That is, there exists a direct relationship between the share price of a company and the net earnings published in its quarterly results. But there were quarters where this rule didn't apply. During some quarters the share price showed an increasing trend even when the quarterly results revealed a decrease in profit or even a loss. The increase in profit was mainly due to the market conditions rather than the announcements of quarterly results. Also, some quarters showed a decrease in share price even when there were positive earnings or increase in earnings. The findings point out that the reason for the increase in share price despite the decrease in results were mainly due to the high expectations of the investors. The investor supports these businesses in an effort to benefit from the goodwill that has been built up over many years and that can be salvaged with the proper management. There are, however, no assurances that a business will live up to the current expectations of investors to become a high-earning company in the future, regardless of the stock price. Investors anticipate the periodic reports. As share prices grow, the company's value increases and it may produce more revenue. Investors will be drawn in by this possibility. If the business performs better than expected, they buy shares of the business; however, if the business performs poorly, the shares of the business face criticism and may lose value. Investors can compare the actual results with the estimated results and the earnings forecasts provided by analysts to get a sense of how the business is performing. The study also analyzed the companies on the basis of their net profits, operating profits and EPS during the eight quarters. This was done in order to find the reasons why the company experienced the results as published in the quarterly reports. Also, the shareholding pattern of the companies reveal that the promoters of both the companies were holding onto their shares, which can be interpreted as their belief in future earnings and expectations in the company. A company's stock price may be skyrocketing even if it may not currently be profitable, which indicates that investors are betting on the company's ability to turn a profit in the future. Therefore, we can conclude that generally there exists a direct relationship between the share price and the results of a company and these may vary depending upon the reputation of the company.

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