

**FINANCIAL PERFORMANCE OF SELECT AUTOMOBILE COMPANIES**

**(WITH REFERENCE TO TATA MOTORS AND MAHINDRA AND MAHINDRA)**

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**Thesis submitted to**

**Avinashilingam Institute for Home Science and Higher Education for Women**

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**In Partial Fulfillment of the Requirement for the Degree of**

**Master of Commerce**

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# **CERTIFICATE**

**AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER  
EDUCATION FOR WOMEN  
COIMBATORE-641043  
DEPARTMENT OF COMMERCE**

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**This is to certify that the project entitled,  
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bonafide work done by,**


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Signature of the Dean

  
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**Viva Voce Examination held on-----**

  
Signature of the Supervisor

Signature of the External Examiner

# **DECLARATION**

**DECLARATION**

We hereby declare the work entitled “**FINANCIAL PERFORMANCE OF SELECT AUTOMOBILE COMPANIES (WITH REFERENCE TO TATA MOTORS AND MAHINDRA AND MAHINDRA)**” is submitted in partial fulfillment of the requirements for the award of the degree of master of commerce, under the supervision and guidance of Dr (Mrs.) **D.GEETHA, M.Com.,** Diploma in Higher Education.,M.Phil.,Ph.D.,Head of Department, Department of Commerce, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore-641043.

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# **ABSTRACT**

## **ABSTRACT**

Mainly India is fastly growing economy. The economic development of a country depends on the development of Agricultural, Industrial and Service sector. Industries play a significant role in the economic development of a country. The automobile industries today are leading players in the growth of manufacturing sector and are deeply engaged in industrial development. In today's financial world, assessment of the financial performance is crucial for taking financial decisions related to planning and control. Hence, financial performance gains much importance for taking financial decisions effectively.

Tata Motors and Mahindra and Mahindra companies are the two major, leading automobile companies. The analysis of financial performance of them reflects the financial position of the company. This research study focus on the financial performance of the companies by analyzing the liquidity, profitability, solvency, efficiency and, estimation of financial health. ( Ratio Analysis, Z-Score analysis and Trend Analysis).

The research study is aimed to analyze and compare the financial performance of Tata Motors and Mahindra and Mahindra companies. The findings of the research study will help this Automobile Industries to improve their financial performance. The financial health will be better and the industry will contribute well for the economic development of the country.

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# **INTRODUCTION**

## **CHAPTER – I**

### **INTRODUCTION OF THE STUDY**

#### **1.1 INTRODUCTION**

In India, as in many other countries, the auto industry is one of the largest industry. It is one of the key sectors of the economy. The industry comprises of automobile and the auto components sectors and encompasses commercial vehicles, multi utility vehicles, passenger cars, two-wheelers, three-wheelers, tractors and related auto components. The industry has shown great advances since de-licensing and opening up of the sector to foreign direct investment (FDI) in 1993. It has deep forward and backward linkages with the rest of the economy and hence has a strong multiplier effect. This results in the auto industry being the driver of economic growth and India is keen to use it as a lever of accelerated growth in the country.

The Indian automobile industry seems to come a long way since the first car that was manufactured in Mumbai in 1898. It directly and indirectly provides employment to over 10 million people in the country. The Indian automobile industry has a well established name globally being the second largest two wheeler market in the world and eleventh largest passenger car market in the world and expected to become the third largest automobile market in the world only behind USA and China.

Finance is about the bottom line of business activities. Every business is a process of acquiring and disposing assets like real assets ( tangible and intangible) and financial assets. The objectives of the business is to grow wealth and use wealth to meet the economic needs. Financially, a business decision reduces to valuation of assets. Valuation is the central issue of finance.

There are different tools used in the analysis of financial data taken from the financial statements. Ratio analysis is widely used tools, in which liquidity, solvency, profitability and efficiency are used for assessing the performance of a firm.

## **HISTORY OF THE INDIAN AUTOMOBILE INDUSTRY:**

The first Indian to own a car in 1901 was Jamshedji Tata. It was in 1942, before India's independence that Hindustan Motors manufactured the first automobile in India.

Soon after India's independence, the government of India tried to boost the sector by encouraging manufacturing of automobiles. Before that, the cars were imported directly.

**1930s** -India was an importer of automobiles.

**1940s** -The Indian automobile industry started its own manufacturing unit.

**1950 - 60**-Tremendous trade restrictions could not boost the **Automobile** industry.

**1960 - 80** -The market was largely dominated by Hindustan Motors, with the Ambassador model.

**1983**-Maruti came into the competition and swept the market.

The automobile sector formally came into being in the year 1952 when the government appointed its first tariff commission with the aim of indigenizing this industry. The year 1952 also marked the introduction of passenger cars in the country. Manufacturers like Hindustan motors, Premier Automobiles and Standard motors came into the limelight.

**1984 - 92** -The Government of India started promoting the Automobile Industry; Delhi Auto Expo was established.

**1992** -The year of Liberalization and the opening up of the FDI.

**1996** -The merger of Maruti and Suzuki swept the market with 60% market share.

**2000** - Almost all major car companies expanded their presence in India by establishing manufacturing units.

**2009** - India emerged as the 4<sup>th</sup> largest exporter of Passenger cars after Japan, South Korea and Thailand.

**2011** - India became the 6<sup>th</sup> largest car manufacturer in the World. India is Asia's 2<sup>nd</sup> largest two-wheeler manufacturer.

### **MOTOR LIBERALIZATION:**

It started from a phase where there were few options with automobiles. This phase continued for an extended period until the phase of the liberalization. It encouraged many international players to foray into Indian markets. Many of them collaborated with the local manufacturers to form companies to capture markets as per the needs of local customers.

**Pre 1983** –1. Closed market with limited supply and out-dated models.

2. Key Players: Hindustan Motors, Premier, Telco, Ashok Leyland, Mahindra & Mahindra.

**1983-93** -1. Japan – isation - Suzuki and Maruti JV to form Maruti Udyog. They started production in 1983, thus, inducing growth of the industry.

2. Key Players: Maruti Udyog, Hindustan Motors, Premier, Telco, Ashok Leyland, etc.

**Post 1993** –1. De-licensing of the sector in 1993.

2. Global majors like Toyota, Honda, Hyundai, GM, Ford Started production in India. Imports were allowed from April 2001. Implementation of VAT.

**2008** – More than 35 players in the market. Setting up of the NAB (National Automotive Board) to act as the facilitator.

## **EMERGING TRENDS IN AUTOMOBILE INDUSTRY:**

India is expected to emerge as the world's third-largest passenger-vehicle market by 2021. It took India around seven years to increase annual production to four million vehicles from three million. However, the next milestone – five million – is expected in less than five years. Hitting that mark will depend on today's rapid economic development continuing, with a projected annual GDP growth rate of 7 percent through 2020, ongoing urbanization, a burgeoning consuming class and supportive regulations and policies. With this growth in mind, it is set out to build a perspective on the trends shaping the Indian market, the value proposition for the automobile industry in India and imperatives for winning in the market.

Currently, the automotive sector contributes more than 7 percent to India's GDP. The Automotive Mission Plan 2016-26 sets an aspiration to increase the contribution to 12 percent. A number of economic trends could help in meeting this target. Rapid urbanization means the country will have over 500 million people living in cities by 2030 – 1.5 times the current US population. Rising incomes will also play a role, as roughly 60 million class (defined as households with incomes greater than \$8000 per annum) by 2025. At the same time, more people will join the workforce. Participation could reach 67 percent in 2020, as more women and youth enter the job market, raising the demand for mobility.

Some of them would leap straight into four-wheeler segment, and others will graduate from two- to four-wheelers. Over 44 percent of the consuming-class households will be in 49 growth clusters – for example, Delhi is expected to have the same GDP per capita at purchasing power parity as the entire country of Russia in 2025. Cities like Delhi are a sweet spot for car manufacturers to target.

In the future, these macroeconomic and demographic trends could shift pockets of growth in passenger-vehicle market. Mini cars and hatchback cars have been the mainstay for the automobile industry in India, with share around 50 percent and growth of 6 to 7 percent between financial year 2014 and 2017. These segments will continue to maintain a dominant position, but the majority of growth is expected to come from new segments such as compact SUVs, Sedans and luxury vehicles.

## **TATA MOTORS- PROFILE:**

Tata Motors Group ( Tata Motors) is a \$45 billion organization. It is a leading global automobile manufacturing company. Its diverse portfolio includes an extensive range of cars, sports utility vehicles, trucks, buses and defense vehicles. Tata motors is India's largest and the only original equipment manufacturer (OEM) offering extensive range of integrated, smart and e-mobility solutions.

Tata Motors is a part of the USD100 billion Tata group founded by Jamsetji Tata in 1868. They believe in 'Connecting aspirations', by offering innovative mobility solutions that are in line with customers' aspirations. They are India's largest automobile manufacturer, and we continue to take the lead in shaping the Indian commercial vehicle landscape, with the introduction of leading-edge power trains and electric solutions packaged for power performances and user comfort at the lowest life-cycle costs. Their new passenger cars and utility vehicles are based on Impact Design and offer a superior blend of performance, driveability and connectivity.

Their focus on connecting aspirations and the pipeline of tech-enabled products keeps them at the forefront of the market. They have identified six key mobility drivers that will lead them into the future - modular architecture, complexity reduction in manufacturing, connected and autonomous vehicles, clean drivelines, shared mobility and low total cost of ownership. Their sub-brand TAMO is an incubating centre of innovation that will spark new mobility solutions through new technologies, business models and partnerships.

Their mission- across our globally dispersed organization- is to be passionate in anticipating and providing the best vehicles and experiences that excite their global customers.

## **MILESTONES OF TATA MOTORS:**

1945-46 – Incorporated as an engineering and locomotive manufacturing company.

1948-49 – Steam road roller introduced in collaboration with Marshall Sons UK.

1958-59 - Set up of R& D centre at Jamshedpur.

1966-67 – Set up of ERC at Pune.

1971-72 – Introduction of DI Engines.

1978 -79 – Started production of Commercial vehicles from pune.

1982-83 – Started manufacturing Heavy Commercial Vehicles.

1984-85 – First hydraulic excavator produced with Hitachi Japan.

1991- 92 – Rollout of 1 millionth vehicle.

1998-99 – 2 millionth vehicles rolled out.

2002- 03- Renamed Tata Motors Limited.

2004 – 05 – Listing on New York Stock Exchange, rollout of 1 millionth passenger car.

2008-09 – Started production of Ace at pantnagar.

#### **AWARDS AND ACHIEVEMENTS :**

- No 1 manufacturer in the J.D. power and Associates and what car? UK vehicle ownership satisfaction study (VOSS) 2012.
- Platinum Big Tick in BITC'S CR Index for outstanding CSR.
- Jaguar F- Type declared 2013 world car Design of the year.
- Range Rover Evoque wins Best compact SUV at 2012 Auto Express Awards.
- Land Rover Discovery 43.0 SDV6 SE – Australia's Best Cars Best All Terrain 4WD Award.
- Rural Marketing Association of India Award for Best CSR by a Brand and Best Long-term Rural Communication Initiative.
- Champions of the Champions trophy at the Association of Business Communications of India (ABCI) Awards.

#### **Brands:**

- The Tata Indigo Ecs enters Limca Book of Records for a non-stop nation-wide endurance drive, across 19 states, covering over 14,000 kms, in just 15 days.
- Tata Nano rated most trusted 4-wheeler brand – Brand Trust Report India study 2013 and 2<sup>nd</sup> most trusted brand (4-wheeler) – ET Brand Equity Survey 2012.

## **MAHINDRA AND MAHINDRA- PROFILE:**

Mahindra and Mahindra Ltd (M&M) is an- India- based company. The company operates in nine segments; automotive segment comprises of sales of automobiles, spare parts and related services; farm equipment segment comprises of sales of tractors, spare parts and related services and information technology (IT) service comprises of services rendered for IT and telecom. The financial services comprise of service relating to financing, leasing and hire purchase of automobiles and tractors; Systech segment comprises of automotive components and other related products and services, and its other segment comprise of logistics, after-market, two wheelers and investment.

The company was incorporated and converted into Public Limited in 1955 at Mumbai. The company manufacture Jeep type vehicles, petrol industrial engines, industrial process control instruments and flow meters. Jeeps are manufactured under a license and an agreement with Willys Motors Inc., Toledo, Ohio, USA., for whom the company also acts as exclusive distributors for the whole of India for their entire range of vehicles including utility vans, cargo/personnel

Mahindra and Mahindra Ltd was incorporated on October 2, 1945 with the name Mahindra Mohammed Ltd. The company was renamed as Mahindra and Mahindra Ltd in the year 1948. On 19 April 2017, Mahindra and Mahindra and DIMO group announced the launch of the new range of tractors – Mahindra YUVO in Sri Lanka. In the year 1977, International Tractor Company of India merged with the company and became its Tractor Division. In the year 1982, Mahindra brand of tractors were launched and also became the market leader in the Indian tractor market.

On 24 May 2017, Mahindra and Mahindra announced a comprehensive roadmap to invest in globally competitive electric vehicles technology called EV 2.0.

## **MILESTONES:**

**1955** - The company was incorporated and converted into public limited at Mumbai.

1958 – Entered into agreement with Birfield ltd to form Mahindra Sintered Products Private limited.

1968 – The Instrumentation and Electronics Division came into existence as a result of merger of the wholly –owned subsidiary of Mahindra Engineering CO.Ltd.

1970 – The name was changed from Mahindra Van Wijk & Visser ltd, to Mahindra & Mahindra Ltd.

1978– The company started negotiation with Balania K. Zacharopoulos Ltd., Athens for jointly promoting a new company in Greece for the manufacture of jeep vehicles and trucks.

1979-Bonus equity share issued in prop.1:1.

1983- Bonus equity share issued in prop.2:3.

1984- Mahindra Spicer Ltd,(MSL) was amalgamated with Mahindra & Mahindra Ltd,(MML).

1985- A Letter of intent was obtained for the manufacture of 50000 lines of EPABX/PAXs in collaboration with OKL Electric Co. of Japan.

2001 –The company has set up a farm extension services division called Mahindra shubh labh,which will pioneer the building of a chain of one-stop shops offering a comprehensive range of farm-gate services.

## **AWARDS AND ACHIEVEMENTS:**

Hosted jointly by Apollo Tyres and CV Magazine, the Apollo CV Awards are a unique set of awards focused on the commercial industry in India. The awards aim at recognizing the unmatched efforts of commercial vehicle and ancillary makers.

## **APOLLO CV AWARDS 2017:**

Mahindra's Truck and Bus division won at the Apollo CV award again. This time it was the 25 tonner which was voted CV and HCV of the year.

#### **APOLLO CV AWARDS 2015:**

Mahindra's Truck and Bus division bagged the 'HCV Rigid Cargo Carrier of the year for its TRUXO 37.

#### **APOLLO CV AWARDS 2014:**

For the fourth consecutive time, Mahindra's Truck and bus division won at the prestigious Apollo Awards. And the truck behind this victory was Mahindra's TORRO 25.

### **1.2 STATEMENT OF THE PROBLEM:**

The financial performance is a common access followed in the business. Company's performance will differ from period to period. Therefore to analyse the performance of the company they used various tools such as Ratio analysis, trend analysis and Z score analysis from the data collected.

Hence the researcher has made an attempt to analyse the data to answer the following problems;

- Whether the companies growth and development gets improved or not during the period of 10 years from 2009-2018.
- whether the companies sales in future can get improved or not ?

### **1.3 NEED OF THE STUDY:**

The development of the company is based on the financial performance of the company. Therefore it is important to analyze Financial Performance properly and improved. It also improves the economic growth of the country. When compared with other manufacturing sector, automobile industry is in the leading position. So, it is considered important to manage financial performance of the companys in an efficient way. A research on study of financial performance of the selected automobile industry was undertaken in 2019 to study the financial status of the period from 2009-2018 and development over a future period during 2019-2024.

### **1.4 OBJECTIVES OF THE RESEARCH STUDY:**

- To analyse the liquidity, profitability, Solvency and Efficiency of the select automobile industry and
- To measure the overall financial performance of both the companies.
- To assess the financial health of both the companies.

### **1.5. SCOPE OF THE STUDY:**

Financial performance of the company is considered important for evaluating the performance of the companies. The purpose is to analyze the profitability, liquidity, solvency of the two companies are to be found and future performance must be forecasted. Based on the findings strategic, managerial decisions can be taken.

It also reveals the extent to which the company is in the process of economic and social development. It also helps to maintain strategies and to follow for the improvement of the company.

### **1.6 LIMITATIONS OF THE STUDY:**

- The study covers a period of 10 years from 2009-2018. It does not consider future and past performance of the company.
- The calculations were made using the financial statements taken from the annual report of the company.

### **1.7 CHAPTER SCHEME:**

The project is classified into five chapters as follow

- **Chapter I-** Introduction chapter discusses about introduction, company profile, Scope of the study, Objectives and the limitations of the study.
- **Chapter II** – Review of literature chapter gives the reviews of similar research studies Conducted earlier.
- **Chapter III** – Research Methodology explains the methodology framed in the research study.
- **Chapter IV** – Analysis chapter describes the Analysis and Interpretation

➤ **Chapter V** – Findings chapter presents the findings and offers suggestions.

# REVIEW OF LITERATURE

## CHAPTER – II

### REVIEW OF LITERATURE

The review of literature gives guidance for getting better understanding of methodology used, limitations of various available estimation procedures, database, lucid interpretation and reconciliation of the conflicting results. Besides this the review of empirical studies explores the avenues for future and present research efforts related with the subject matter. In case of conflicting and unexpected results, the knowledge of other researchers simply through the medium of their published works can be taken.

A large number of research studies have been carried out on different aspects of the working of public and private sector by the researchers, economists and academicians in India. Different authors have analyzed financial performance in different perspective.

A review of these analysis is important in order to develop an approach that can be employed in the context of the study of selected Indian Public Sector Manufacturing Enterprises viz .Steel, Minerals and Metals, Coal and Lignite ,power, petroleum and chemicals and pharmaceuticals. Therefore, the present chapter reviews the various approaches to the study on financial analysis and performance.

Priyanka R.Gowda and Dr.Manoj Kumara N.V, ( 2017) **“Financial Performance Analysis as a determinant of Profitability in Indian automobile industry”**. The objective of the study is to determine the relationship between the financial performance ratios and to evaluate the changes in the mean value of financial performance ratios. The period of study is from 2012 to

2016. They analyzed the data by using ratios and statistical tools such as one sample t-test, Karl Pearson correlation, Partial correlation and descriptive statistics. They concluded that there is a positive relationship between current ratio and quick ratio. It evolves the effective inventory management and conversion period leads to higher liquidity power to the firm. Therefore, the study proves that there is a significant change in the mean value of financial ratios.

**Sharma (2012)** studied in his research concerning “**Comparing and Analyzing Financial statements to make an Investment decision: Case study of Automobile Industry**”. The aim of this study is to find the risk involved and the gain of these different companies. The period of the study is from 2008 to 2011. They analyzed quantitative and qualitative methods and finally compared the performance of companies by finding different financial ratios, income statement, statement of cash flow, trend statement, common size statement. They concluded that the Indian automobile Industries performance is very risky with very little rate of return. They suggested that this study can also act as a guide to these investors who don't have adequate knowledge to rate the performance of companies.

**A.Dharmaraj and Dr.N.Kathirvel(2013)**, “**Financial Performance of Indian Automobile Industry- A Comparative Study during Pre and Post Foreign Direct Investment**”. The objective of the study is to compare and analyse the financial performance of the Indian automobile Industries during Pre and Post Foreign Direct Investment. The period of this study is from 1999 to 2012. They analyzed using different ratios like liquidity, profitability, efficiency and solvency ratios. They concluded that the liquidity ratios showed little changes and profitability showed an increasing trend during post FDI when compared to pre FDI and the efficiency ratios showed that the companies are efficiently utilizing the available resources during the post FDI period when compared to pre FDI.

**Alpa Joshi (2013)**, “**A Study of PAT and PBT Analysis of selected BSE B Group Companies**”. The aim of the study is to evaluate the PBT and PAT to income ratio of the selected BSE B group companies of India. The period of study is from 2008-09 to 2011-12. For the analysis of data various ratios relating to profitability is considered. Moreover the simple statistical measures like mean and ANOVA Test is also applied for hypothesis testing. They concluded that the PBT to income and PAT to income ratio for different selected companies is different i.e. not similar.

**Bhunja, Mukhuti & Roy (2011)** have discussed about “**Financial performance analysis – A case study**”. The main aim of study was to identify the financial strengths and weaknesses by covering two public sector drug & pharmaceutical enterprises listed on BSE. For study purpose, they have been selected twelve years from 1997-98 to 2008-09. They analyzed the data by using ratios and statistical tools like Arithmetic Mean., Standard Deviation., Coefficient of Variance., linear multiple regression analysis and Test of hypothesis t-test. They concluded that growth during last decade was noteworthy and market trend was growing at a faster rate. They suggested that the opportunities could be grabbed through the diversification of export basket in untouched foreign destinations.

**Shinde and Dubai ( 2011)** discussed in their research paper about “**Performance of key players, current and future trends as well as growth of Indian Automobile industry**” during the period from 2005 to 2010 . The aim of this study is to analyze the growth of automobile industry. Industry analysis was based on various micro and macro –economic factors, sector and industry specific databases. They used SWOT analysis to overcome the weakness and grab the opportunities available in automobile industries in consideration of strengths and threats. They concluded that growth during last decade was noteworthy and market trend was growing at a faster rate. They also revealed that strict quality standards, services and use of latest technology can provide an edge over competitors across the globe.

**Rapheal Nisha (2013)** The author tries to evaluate “**The financial performance of Indian Tyre Industry**”. The objective of the Study is to evaluate the financial performance of Indian tyre industry in view of some financial ratios. The study was conducted for period of 2003-04 to 2011-12. To analyze, they used performance indicators like current ratio, quick ratio, net profit ratio, Return on capital employed, inventory turnover ratio, investment turnover ratio and total asset turnover ratio. The result suggests that the tyre industry has been passing through turbulent phases characterized by enhanced debt burden, low utilization of assets and all huge liquidity crunch. The key to success in industry is to improve labour productivity and flexibility and capital efficiency.

**Tariq Zafar and Khalid (2012)** have discussed about “**A Comparative Evaluation of Financial Performance and Market value of Maruti and Tata company**”. Its core aim is to evaluate the past performance, profitability position and the expected future performance of the

companies along with recognizing the effect of various financial ratios on company's future. The period of study is from 2006-2010. They have analyzed on the basis of their financial ratios , standard deviation, the sum of mean values and average score. They concluded that the ratio analysis was of with lack of authenticity in data, in calculation which may manipulating presentation by the promoters. They revealed that the change in price levels due to inflation is also not properly considered by management.

**Dhole (2013)** has discussed about “**Analytical study of four Automobile sector companies in price movement of shares**”. The main objective of this study was to analyze the role of company performance in price movement of shares and to study the various factors affecting the price movement of shares and company performance. The period of study was from 2003to2009. She has covered fundamental analysis of four companies which includes economic analysis, industry analysis and company analysis. For analyzing the performance of the company's quarterly financial reports were analyzed by using variables such as Earnings Per Share, Profit Earnings Ratio and quality of earnings ratio. They concluded that, it is better to invest in companies with good market value, good performance in revenue and one should consider the various factors affecting the performance before investing. Speculative or sentimental factors do play a role in price movement of shares. But, it is only a short-term effect, in long term annual performance is sole factor responsible for price movement.

**S.Kavitha and Dr.M.Gomatheeswarn , (2018)** examines about “**A Study on Financial Performance Analysis of Spinning Mills of Coimbatore City**”. The aim of this study is to analyze the overall financial performance of spinning companies. The study was carried out for the period from 2011-12 to 2015-2016. The tools used for analysis is comparative ratio analysis of the balance sheet and suitable ratios were framed and calculated to know the financial performance of the company. They concluded that from the analysis overall companies performance and suggestions for corrective actions like maintain good solvency in order to meet short term and long term obligations were given wherever it is applicable.

**Dr. S. Ayyappan , M.Sadika Sultana and M. Sakthivadivel(2014)** has discussed about the “**Financial Performance Analysis of Selected Textile Industries in India**”. The objective of the study was to predict the future financial position of selected financial parameters of textile industries in India. The period of the study was from 1999-2000 to 2010-11. They made analysis

using actual value and the computed trend values, the estimates of trend co-efficient of shareholders funds of the selected study units. The study concluded that the selected textile group of mills are the capital intensive in nature but the purchase of fixed assets policy should be carefully planned and reviewed by which funds are properly utilized.

**Neha Mittal (2011)** has studied “ **the determination of capital structure choice of the selected Indian industries**”. The main objective was to investigate whether and to what extent the main structure theories could explain the capital structure choice of Indian firms. It has applied multiple regression models on the selected industries by taking data for the period 2001-2008. The study concluded that the main variables determining capital structure of industries in India were agency cost, assets structure, non- debt tax shield and size. The coefficients of these variables were significant at one per cent and five per cent levels.

**Keshwara, (2009)** has studied “**A Study of Financial Performance of Aluminum Industry in India**”. The aim of this study is to estimate the administrative efficiency of its management. In this research for analyzing the performance of aluminum industries, he has been made Inter-firm comparison by using ratios, cash-flow analysis, break even analysis, trend analysis, average, index number, standard deviation, correlation, regression and time series analysis. It concluded that the result showed by ANOVA reveals the difference in total asset turnover ratio were insignificant in all selected companies at 5 per cent levels of significant. On the basis of findings, he has given some suggestion for improvement of performance like company should try to increase the production, control the cost of goods sold, adoption cost control techniques, and efficient use of funds as well investors, financial managers, and workers for taking decision related to their own regards of interest.

**Gowsalya.R.S and Mohammed Hasan.M (2017)**, has explained about “**Financial Performance Analysis**”. The objective of this study is to compare the current financial performance with last five years and to study the existing financial position of the company. They carried out the period of study from 2013 to 2017. For the purpose of analysis they have used tools like comparative balance sheet, common size balance sheet, ratio Analysis and common size analysis. It concluded that there is of great deal of their various financial aspects for five years. It aids the company, the shareholders as well as the creditors in taking valuable

decisions and scope of decisions. As such ,there are more avenues and scope for the companies to improve and thrive successfully in the nature.

**Sharma Nishi (2011)** has studied “**The Financial Analysis of Automobile Industry**”. The objective of this paper was to assign ranks to selected companies on the basis of their average financial performance .For analysis purpose they used namely liquidity, profitability, leverage and managerial efficiency analysis for the period of decade from 2001-02 to 2010-11. This study concludes that profitability and managerial efficiency of Tata motors as well as Mahindra & Mahindra Ltd are satisfactory but their liquidity position is not satisfactory. The liquidity position of commercial vehicle is much better than passenger vehicle segment.

**Ms.Reetu (2017)** made “**A Study of Financial Analysis of Sutlej Textile and Industries Ltd**”. The objective of the study is to find out long-term solvency and liquidity position of company. This study covered from 2011 to 2015. To analyze they have used tools like comparative financial statements and ratio analysis. It revealed that the Sutlej textile mills have an ideal financial position. There was an increasing trend in the financial position of the company and also concluded that the short term liquidity and the long- term solvency of the company was good.

**Lamaan Sami and Anas Khan (2015)** examined “**The Financial Performance of the Ballarpur Industries Limited and Tamil Nadu Newsprint and Papers limited**”. The objective of the study is to study the concept of financial performance appraisal. The period of study is from 2005-2010. For the purpose of financial performance they analyzed by using Profitability, Liquidity and solvency ratios. The findings showed that there is a significant d/f in BILT and TNPL with respect to Gross Profit ratio, Net Profit ratio, Current ratio, quick ratio and debt equity ratio.

**D.Jai Ganesh and S.M.Chockalingam (2017)** explained about “ **A Study on Long- Term Liquidity Position of the select Paper Mills in Tamilnadu**”. The main aim of this study is to make measures to increase the long-term liquidity position of the selected paper mills on the basis of findings in the study. The study was carried out for the period of 2005-06 to 2014-15. They study was analysed by making use of various Accounting and Quantitative and Statistical tools such as ratio analysis, student’s t test, growth rates, co-efficient of variation and inter-

correlation analysis. They concluded that the Tamil Nadu Newsprint Paper Limited's (TNPL) Long term liquidity position is better than that of Seshasayee Paper and Boards Limited (SPBL), where in the Mean , Solvency Ratio and Proprietary Ratio of TNPL is higher than that of SPBL. And the Annual Growth rate of Fixed Asset Ratio, Debt Equity Ratio and Solvency Ratio is higher in case of TNPL.

**Ms .Padma, (2016) explained about “A Comparative Study of Selected Steel Sector Industries”.** The Objective of the study is to compare the financial performance of the company. The period of study is from 2011-2015. To analyze they used ratios such as Current ratio, Return on capital employed, Total Debt/Equity ratio, Inventory Turnover ratio, Dividend payout ratio, Earnings per share. They concluded that the position of the APL Apollo Steel and Tata Steel is better than other industries. Therefore the APL Apollo Steel and Tata Steel companies are performing better.

**Saranya. S, (2017) studied about “ A Study On Comparative Financial Performance of the Select Cement Companies in India”.** The objective of the study is to evaluate the financial performance of the sample cement companies. The period of study is from 2012 to 2016. For the purpose of analysis,they used ratio analysis such as liquidity position and profitability. It concluded that the contribution of selected cement companies towards financial growth and development of India will be expected to increase in forthcoming years.

**Dr. S.Praveena,(2017) examined about “ An Analysis of Financial Position of Sugar Industry”.** The aim of this study is to analyze the financial position of the industry. The period of study is from 2008-09 to 2013-14. The analyze were made using of ratio analysis, regression, coefficients and path analysis. They concluded that there was a significant difference between the return on equity and the DuPont variables and also there is no significant difference between the equity multiplier and the return on equity.

**Hiralal.R.Desrani,(2013), described about “Comparative Study of Ratio Analysis of Selected Textile Companies of India”.** The objective of this study is to evaluate and compare the selected companies performance. The period of the study is from 2008 to 2012. To analyse they have used tools like accounting ratios, ANOVA. It can be concluded that the Textile industry has wide scope in the international market. The industry's has to focus on their parts and

quality design ,quality products with the advance technology which make it easy possibility to get better international market.

**V.Kasthuri, (2016) studied “Evaluation of Financial Performance of Steel Industry of India”.** The main aim of this study is to evaluate the financial performance of steel industry and period is from 2006-07 to 2015-16. To analyze of this study, they used statistical tools and financial tools include liquidity, profitability and solvency ratios have been applied. It concluded that the sales have no significant impact on net liquidity position, profitability and solvency position of Steel Industry of India. The industry can able to pay its obligations within time during the early period of the study. The industry earns satisfactory profit during study period.

**Tom Jacob, (2017) explained about “ A Study on the growth of automobile sector in India with special focus on two wheeler industry”.** The objective of this study is to analyze the growth of automobile industry with a special reference to two wheeler sector. The period of study is from 2008 to 2014. For the purpose of analysis they used of statistical data and of trend analysis. It can be concluded that the easier and faster mobility of people and goods across the regions, countries and continents is a cherished earning of mankind. However , a seamless development of this industry across countries and continents alone will help in realization of this objective.

**Dr.Mohanasoundari,(2017) described about “A Comparative Study on Selected Ceramics Industry in India”.** The main objective of this study is to identify and geographical factors responsible for the growth of industry in India. The period of study is from 2006-07 to 2015-17. For analysis they have used ratio analysis like profitability,liquidity, Activity and solvency. It also concluded that the financial position and operational performance of the selected ceramic companies in terms of profitability and efficiency is good and shown an increasing trend. Due to inefficiency in liquidity management and not to utilize the debt financing as suggested, the industry shown very low performance.



# **RESEARCH**

# **METHODOLOGY**

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

Research Methodology is the specific procedures or techniques used to identify, select, process and analyze information about the research problem. In order to achieve the objectives of the study and to analyse the factors considered, an appropriate technology is developed. The collection of data and analysis strategy are planned accordingly. In a research study, the methodology section allows the reader to critically evaluate a study's overall validity and reliability.

#### **Research Gap:**

After scrutinising thoroughly the various reviews of literature on financial performance analysis of companies in industries in different periods, it is found that, there were only very few researches on comparison of financial performance of automobile companies. After finding out this research gap, the research study to compare the financial performance of Tata Motors and Mahindra and Mahindra was carried out during 2019. The financial performance was analyzed for two select automobile companies for the period 2009-2018. For achieving the best results, main research objectives were formulated.

**Research Objectives:**

- To analyse the liquidity, profitability, Solvency and Efficiency of the select automobile industry(Tata Motors and Mahindra and Mahindra).
- To measure the overall financial performance of both the companies.
- To assess the future trend of the company's profitability.

To achieve the research objectives, a suitable research design was framed.

**Research Design:**

The research design of this study is analytical in nature. This section is helpful to know the methodology adopted to achieve the objective of the analysis and it provides details of the collection of data, and data analysis procedures. This study is based on secondary data. Data pertaining to liquidity, profitability, solvency, activity and valuation position was collected from the Balance Sheets and Profit & Loss accounts of Tata Motors and Mahindra and Mahindra (2009-2018).

**Period of the study:**

The study was conducted for a period of 10 years from 2009-2018.

**Sampling:**

The sample of the research study is two major automobile industries. The research was conducted on financial performance of Tata Motors and Mahindra and Mahindra. Both Tata Motors and Mahindra and Mahindra are leading companies in Automobile sector in India.

**Source of data:**

Data was collected from secondary sources.

**Secondary data:**

The secondary data is that which had already been collected and processed by someone. The sources of secondary data are annual reports, websites, magazines, articles etc...

**TOOLS USED FOR DATA ANALYSIS:**

The data collected are analysed using the following tools,

- A. Ratio Analysis
- B. Mean
- C. Trend Analysis
- D. Z score analysis

### **A. Ratio Analysis:**

Ratio analysis is the technique of analysis and interpretation of financial statements. It is the process of establishing and interpreting various ratios for helping in making certain decisions. However, ratio analysis is not an end in itself. It is only a means of better understanding of financial strengths and weaknesses of a firm. Ratio analysis is one of the most powerful tools of financial analysis. It is used as a device to analyse and interpret the financial health of enterprise.

- 1 .Liquidity Ratio
2. Profitability Ratio
3. Overall profitability Ratio
4. Solvency Ratio
- 5 .Activity Ratio

### **1.LIQUIDITY RATIO:**

Liquidity refers to the ability of a concern to meet its current obligation as and when these become due. The short-term obligations are met by realising amounts from current, floating or circulating assets. The current assets should either be liquid or near liquidity. These should be convertible into cash for paying obligations of short term-nature. The sufficiency or insufficiency of current assets should be assessed by comparing them with short term liabilities.

#### **i. Current Ratio:**

Current ratio may be defined as the relationship between current assets and current liabilities. This ratio, also known as working capital ratio, is a measure of general liquidity and is

most widely used to make the analysis of a short term financial position or liquidity of a firm. It is calculated as

**Current Asset**

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}$$

**Current Liabilities**

Where current assets include cash and those assets which can be easily converted into cash within a short period of time generally, one year such as marketable securities, bills receivables, sundry debtors, inventories, work-in-progress, etc and where current liabilities are those obligations which are payable within a short period of generally one year and include outstanding expenses, bills payable, sundry creditors, accrued expenses, dividend payable, etc.

**ii . Quick or Acid Test or Liquid Ratio:**

Quick Ratio may be defined as the relationship between quick/liquid assets and current or liquid liabilities. An assets is said to be liquid if it can be converted into cash within short period without loss of value. In the sense cash in hand and cash at bank are the most liquid assets. The other assets which can be included in the liquid assets are bills receivable, sundry debtors, marketable securities and short term or temporary investment.

**Liquid Asset**

$$\text{Acid Test Ratio} = \frac{\text{Liquid Asset}}{\text{Liquid Liabilities}}$$

**Liquid Liabilities**

**iii. Absolute Liquid Ratio :**

Absolute Liquid Assets include cash in hand and at bank and marketable securities or temporary investments. Although receivables, debtors and bills receivable are generally more liquid than inventories, yet there may be doubts regarding their realisation into cash immediately or in time. Hence, some authorities are of the opinion that the absolute liquid ratio should also be

calculated together with current ratio and acid test ratio so as to exclude even receivables from the current assets and find out the absolute liquid assets.

**Absolute Liquid Assets**

$$\text{Absolute Liquid Ratio} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$$

**Current Liabilities**

**2.PROFITABILITY RATIO:**

The objective of every business undertaking is to earn profits. Profit earning is considered essential for the survival of the business. In the words of Lord Keynes, “ Profit is the engine that drives the business enterprise”. A business needs profits not only for its existence but also for expansion and diversification. The investors want an adequate return on their investments, workers want higher wages, creditors want higher security for their interest and loan and so on. Profits are a useful measure of overall efficiency of a business.

**i. Gross Profit Ratio:**

The two basic components of the gross profit ratio are sales and cost of goods sold since gross profit is simply the excess of net sales over cost of goods sold. Net sales can be found by deducting sales returns or return inwards, if any, out of sales.

**Gross Profit**

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} * 100$$

**Net Sales**

**ii. Net Profit Ratio:**

The two basic elements of the ratio are net profits and sales. The net profits are obtained after deducting income-tax and generally, non-operating incomes and expenses are excluded from the net profits for calculating this ratio. Thus, incomes such as interest on investment outside the business, profit on sale of fixed assets, etc are excluded. The ratio is very useful as if the profit is not sufficient, the firm shall not be able to achieve a satisfactory return on its

investment. This ratio also indicates the firm's capacity to face adverse economic conditions such as price competition , low demand etc.

**Net profit after tax**

**Net profit Ratio = ----- \*100**

**Net Sales**

### **3 .OVERALL PROFITABILITY:**

Profits are the measure of overall efficiency of a business. Following are the important overall profitability ratios or measure of Return on Investments.

#### **i. Return On Capital Employed:**

The return on capital employed is the prime ratio which measures the efficiency of the business. It measures not only the overall efficiency of business but also helps in evaluating the performance of various departments. The performance of the enterprise can be assessed in relation to other concerns by making inter- firm and intra-firm comparisons. In addition it also helps for the outsiders like bankers, creditors, financial institutions to find whether the concern is viable for giving credit or extending loans or not.

**Adjusted Net profit**

**Return on Gross capital employed= ----- \*100**

**Gross Capital Employed**

**Adjusted Net Profits**

**Return on Net capital employed= ----- \*100**

**Net Capital Employed**

#### **ii. Return On Networth:**

The two basic components of this ratio are net profits and shareholders funds. Shareholders funds include equity share capital, preference share capital, free reserves such as share premium, revenue reserve, capital reserve, retained earnings and surplus. Net profits are visualised from the viewpoint of owners. Thus ,net profits are arrived at after deducting interest on long-term borrowing and income-tax, because those will be the only profits available for shareholders.

**Net Profit(after interest and tax)**

**Return on Networth= -----**

**Shareholders Funds**

#### **4.SOLVENCY RATIO:**

The Solvency ratios are also known as Long Term Financial Position Ratio. The long – term creditors of a firm are primarily interested in knowing the firm’s ability to pay regularly interest on long-term borrowings, repayment of the principal amount at the maturity and the security of their loans. Accordingly, long- term solvency ratios indicate a firm’s ability to meet the fixed interest and costs and repayments schedules associated with its long-term borrowings.

##### **i. Interest Coverage Ratio:**

Interest coverage ratio indicates the number of times interest is covered by the profits available to pay the interest charges. Long – term creditors of a firm are interested in knowing the firm’s ability to pay interest on their long term borrowing. Generally, higher the ratio, more safe for the long-term creditors because even if earnings of the firm fall, the firm shall be able to meet its commitment of fixed interest charges. But a too high interest coverage ratio may not be good for the firm. This ratio does not take into consideration on other fixed obligations like payment of preference dividend and repayment of loan instalments.

**Net profit(before Interest and taxes)**

**Debt – Service Ratio or Interest Coverage = -----**

**Fixed Interest Charges**

**ii. Debt-equity Ratio:-**

Debt –equity ratio, also known as External- Internal Equity Ratio is calculated to measure the relative claims of outsiders and the owners (i.e., shareholders) against the firm’s assets. This ratio indicates the relationship between the external equities or the outsiders funds and the internal equities or the shareholder’s funds,thus

**Long term debt**

**Debt- equity ratio=-----**

**Shareholders fund**

**5. ACTIVITY/ EFFICIENCY RATIO:**

The activity ratio are also known as Efficiency ratio/ Turnover ratio, because they indicate the speed with which assets are converted or turned over into sales. This ratio measures the efficiency or effectiveness with which a firm manages its resources or assets.

**i. Inventory Turnover Ratio:**

Inventory Turnover Ratio also known as stock velocity is normally calculated as sales/average inventory or cost of goods sold/average inventory. It would indicate whether inventory has been efficiently used or not. The purpose is to see whether only the required minimum funds have been locked up in inventory. It also indicates the number of times the stock

has been turned over during the period and evaluates the efficiency with which a firm is able to manage its inventory.

**Cost of goods sold**

**Inventory turnover ratio= -----**

**Average Inventory at cost**

**ii. Debtors Turnover Ratio:**

Receivable turnover ratio or Debtors turnover ratio is computed by dividing the net credit sales during a period by average receivables. Accounts receivable turnover ratio simply measures how many times the receivables are collected during a particular period. It is a helpful tool to evaluate the liquidity of receivables.

**Total Sales**

**Debtors Turnover Ratio= -----**

**Debtors**

**iii. Average Collection period:**

The average collection period is computed by dividing the number of working days for given period by receivables turnover ratio. It is expressed in days and is an indication of the quality of receivables. A short collection period means prompt collection and better management of receivables. A longer collection period may negatively effect the short-term debt paying ability of the business in the eyes of analysts.

**No of working days**

**Average collection period = -----**

**Debtors turnover ratio**

**B.OVERALL PERFORMANCE OF TATA MOTORS AND MAHINDRA AND MAHINDRA –COMPARISON:**

**Mean:-** Arithmetic average is called as mean. It gives the single value to describe the whole data.

$$X = \frac{\sum x}{N}$$

N

### **C. Trend Analysis:**

The trend projection method is based on the assumption that the factors liable for the past trends in the variables to be projected shall continue to play their role in the future in the same manner and to the same extent as they did in the past while determining the variable's magnitude and direction.

In predicting demand for a product, the trend projection method is applied to the long time-series data. A long-standing firm can obtain such data from its departments and the books of accounts. While the new firms can obtain data from the old firms operating in the same industry. The trend projection method includes three techniques based on the time-series data.

1. Graphical method

2. Fitting Trend Equation or Least Square method

3. Box –Jenkins Method.

### **D. Z- score Analysis :**

The Altman Z-score is the output of a credit- strength test that gauges a publicly traded manufacturing company's likelihood of bankruptcy. The Altman Z- score is based on five financial ratios that can calculate from data found on a company's annual report. It uses profitability, leverage ,liquidity, solvency and activity to predict wheather a company has high probability of being insolvent. A score below 1.8 means it's likely the company is headed for bankruptcy, while companies with scores above 3 are not likely to go bankrupt.

One can calculate the Altman Z-score as follows:

$$\mathbf{Z\text{-Score}=1.2A+1.4B+3.3C+0.6D+1.0E}$$

Where

A=working capital / total assets

B= retained earnings/total assets

C=earnings before interest and tax/total assets

D- market value of equity / total liabilities.

E= sales/ total assets

# ANALYSIS AND INTERPRETATION

## CHAPTER – IV

### ANALYSIS AND INTERPRETATION

Analysis is an examination of relevant data and facts to uncover and understand the cause - effect relationship, thus providing basis for problem solving and decision making.

Interpretation is the action of explaining and understanding something by the researcher in his own.

The financial data collected from Tata Motors and Mahindra and Mahindra is analyzed by applying relevant tools.

**The analyzed data was presented in the following manner:**

- To analyse the Liquidity, profitability, solvency and Efficiency of the select Automobile companies and compare (Tata Motors and Mahindra and Mahindra).
- To measure the overall financial performance of both the companies.
- To assess the financial health of the companies.

The analysis is provided in the following order,

A. Ratio Analysis

1. Liquidity Ratio
2. Profitability Ratio
3. Overall profitability Ratio
4. Solvency Ratio
5. Efficiency Ratio

**A. Ratio Analysis:**

**1. Liquidity Ratios-**

It refers to the ability of a concern to meet its current obligation as and when these become due.

**TABLE I**

**i. CURRENT RATIO**

<b>YEARS</b>	<b>TATA MOTORS</b>	<b>MAHINDRA AND MAHINDRA</b>
2009	0.6	1.8
2010	0.7	2.1
2011	0.8	1.3
2012	0.9	1.3
2013	0.8	1.3
2014	1	1.4
2015	1	1.2
2016	1	1.2
2017	1	1.2
2018	0.9	1.2
<b>Average</b>	<b>0.87</b>	<b>1.4</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table I shows that the current ratio in the year 2009 was 1.8 and it raised to 0.7 in 2010, 0.8 in 2011 and 0.9 in 2012. And again after fall in 2013 it was 0.8. Then it had regained from 2014 - 17. In 2018 it fall to 0.9 .The ideal current ratio is 2:1. The table 1 shows that current ratio is less than 2 in the study period. This shows that the company is not enjoying credit worthiness. The average current ratio of Tata Motors is 0.87%

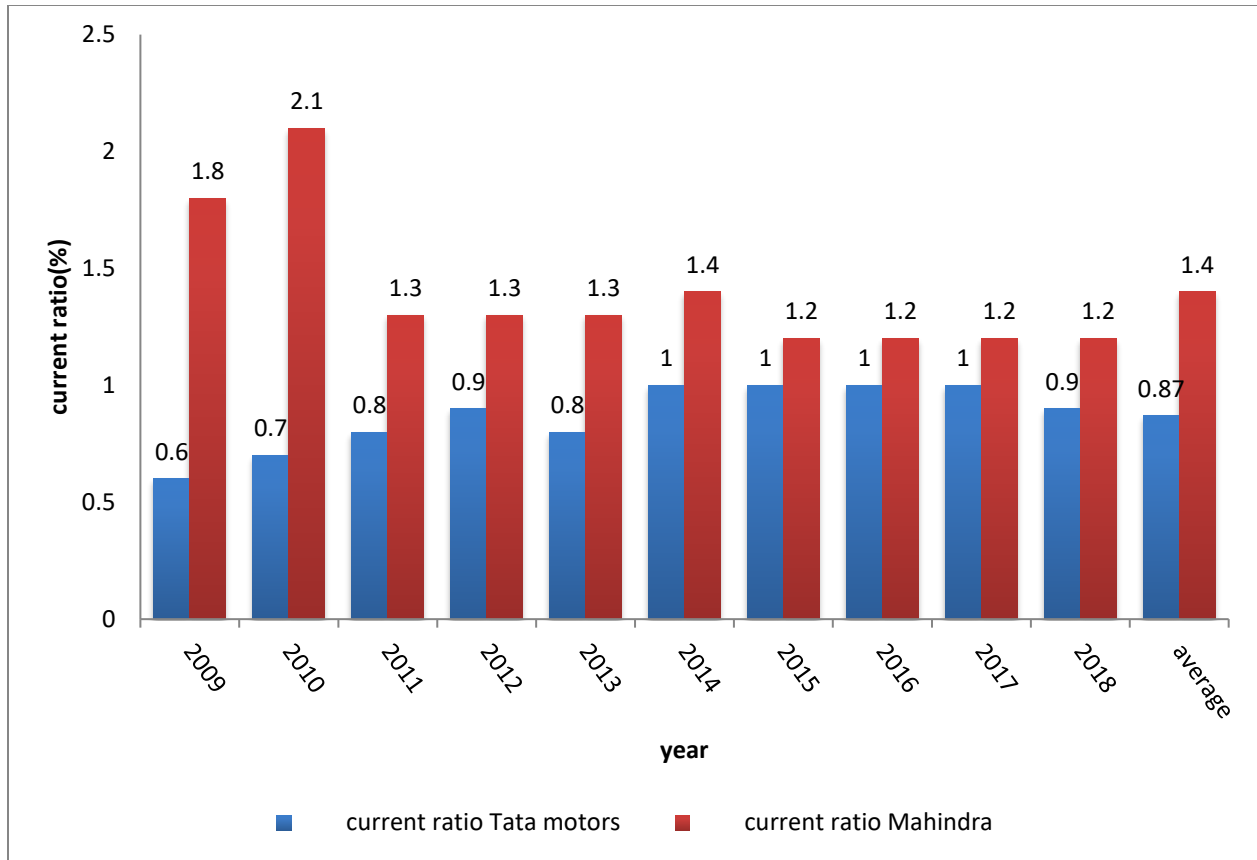
**Mahindra and Mahindra:**

The table I reveals the current ratio of Mahindra and Mahindra. In the year 2009 and 2010 it was 1.8, and 2.1%. It again falls in 2011-13 to 1.3%. It regained to 1.4 % in 2014. Then it decreased and remained 1.2% from 2015-18. It shows that the trend is stable. The average current ratio of Mahindra and Mahindra is 1.4%.

When the liquidity position of Tata Motors and Mahindra and Mahindra was compared the current ratios for the period 2009-2018, indicates that the liquidity of Mahindra and Mahindra is better.

**EXHIBIT I**

**CURRENT RATIO- TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)**



**TABLE II**

**ii. LIQUID RATIO**

<b>YEARS</b>	<b>TATA MOTORS</b>	<b>%</b>	<b>MAHINDRA ANDMAHINDRA%</b>
2009	0.4		1.5
2010	0.5		1.7
2011	0.5		1
2012	0.6		1
2013	0.6		1
2014	0.7		1.1
2015	0.7		0.9
2016	0.7		0.9
2017	0.7		1
2018	0.7		1
<b>Average</b>	<b>0.61</b>		<b>1.11</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

#### **Tata Motors:**

The table II shows that the liquid ratio in the year 2009 was 0.4 and it raised to 0.5 in 2010 and 2011, 0.6 in 2011 and 2012. Again it increased and remained same from 2014 to 2018- 0.7. The ideal current ratio is 2:1. The table II shows that current ratio is less than 2 in the study period. This shows that the company is not enjoying credit worthiness. The average current ratio of Tata Motors is 0.61%.

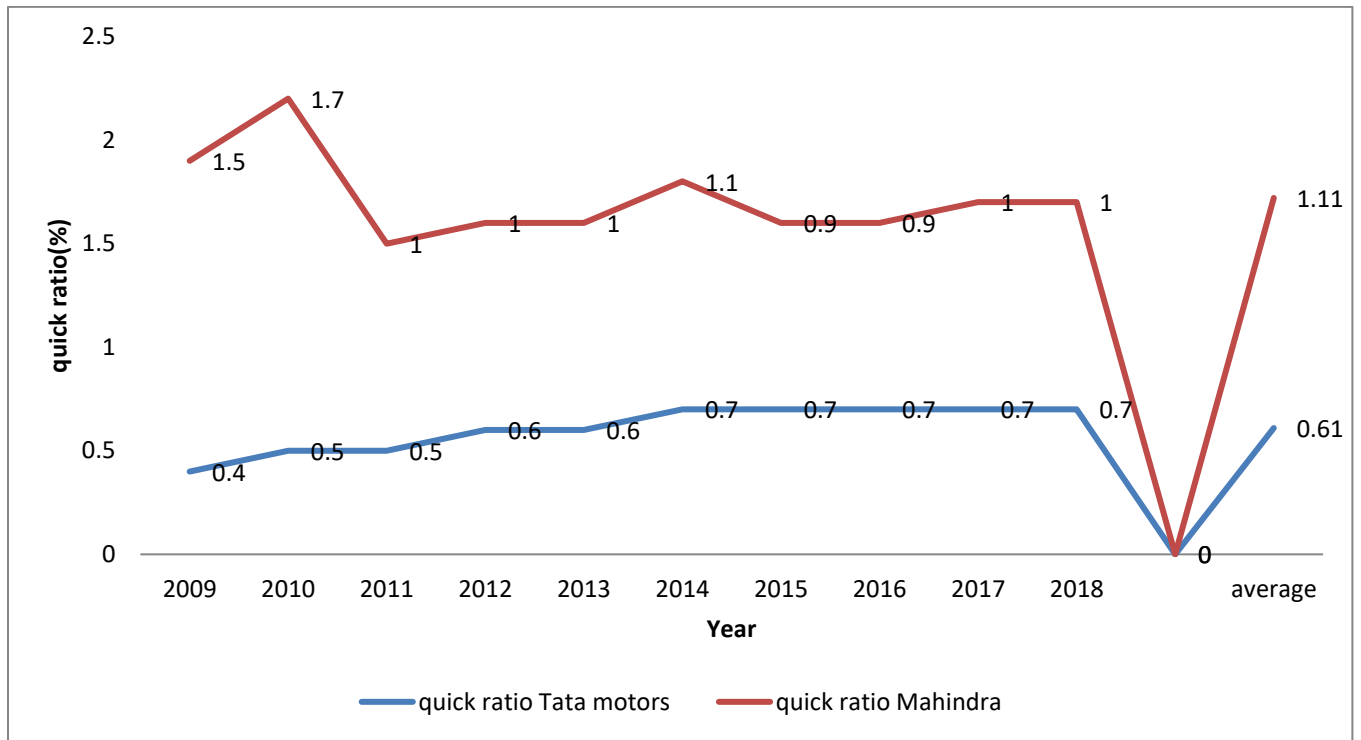
#### **Mahindra and Mahindra:**

The table II shows that the liquid ratio in the year 2009 was 1.5. It was fluctuating from 2010-2018. There was a heavy decline in liquidity ratio to 0.9 in 2015 and 2016 and it was the lowest. Finally in the year 2018, it again showed a same trend, liquid ratio was 1%. The average liquid ratio of Mahindra and Mahindra was 1.11%.

The liquidity position of Tata Motors and Mahindra and Mahindra was compared. The liquid ratios for the period 2009-2018, indicates that the liquidity position of Mahindra and Mahindra is better .

## **EXHIBIT II**

### **LIQUID RATIO- TATA MOTORS AND MAHINDRA AND MAHINDRA - (2009-2018)**



**TABLE III**

**iii. ABSOLUTE LIQUID RATIO**

<b>YEAR</b>	<b>TATA MOTORS %</b>	<b>MAHINDRA AND MAHINDRA %</b>
2009	8.12	19.53
2010	16.99	14.56
2011	27.64	15.17
2012	30.21	17.91
2013	29.23	20.08
2014	37.67	25.21
2015	35.06	17.58
2016	27.18	13.69
2017	28.64	13.81
2018	24.99	15.63
<b>Average</b>	<b>26.57</b>	<b>17.31</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table III reveals the absolute liquid ratio of Tata Motors. In the year 2009 it was 8.12% and it increased to 16.99% in 2010. From 2010-2018 the ratios were fluctuating. Finally in the year 2018, the ratio moves downwards to 24.99. The average absolute liquid ratio of Tata motors is 26.57.

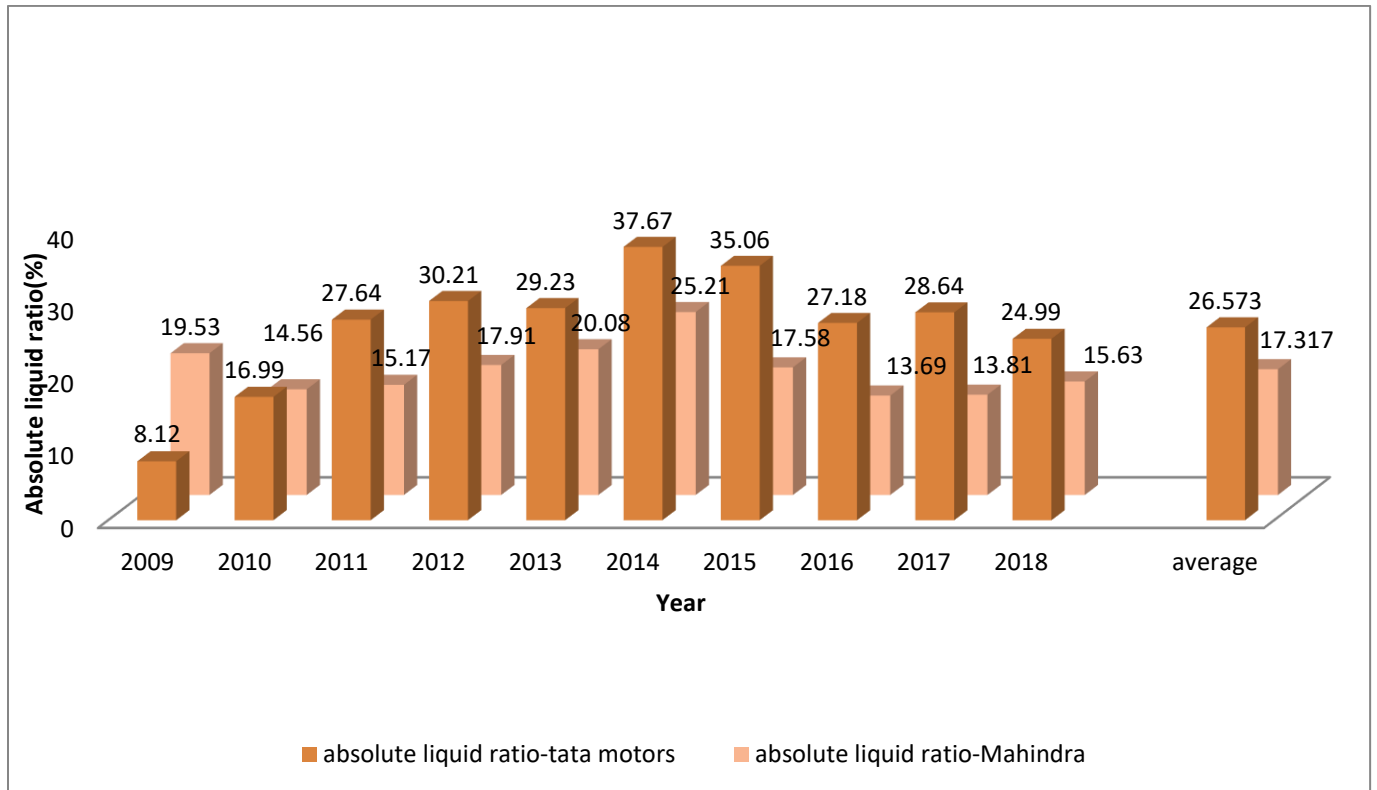
**Mahindra and Mahindra:**

The table III shows that the absolute liquid ratio in the year 2009 was 19.53%. In the year 2010 - 2014 it was increasing and after had a fall to 17.58 in 2015. It increased from 2016-2018, to 13.69-15.63. It shows that the company is in increasing trend. The average absolute liquid ratio of Mahindra and Mahindra was 17.31%.

The liquidity position of Tata Motors and Mahindra and Mahindra was compared. The absolute liquid ratio for the period 2009-2018, indicates that the liquidity position of Tata Motors is in better position.

**EXHIBIT III**

**ABSOLUTE LIQUID RATIO- TATA MOTORS AND MAHINDRA AND MAHINDRA  
(2009-2018)**



**2.PROFITABILITY RATIOS:**

Profitability ratios are useful to measure the overall efficiency of a business.

**TABLE –IV**

**i. GROSS PROFIT RATIO**

<b>YEAR</b>	<b>TATA MOTORS %</b>	<b>MAHINDRA AND MAHINDRA %</b>
2009	86.8	52.02
2010	74.5	44.05
2011	58.75	79.18
2012	53.07	56.84
2013	51.92	53.34
2014	53.15	51.36
2015	54.96	56.14
2016	52.48	53.90
2017	51.61	25.05
2018	59.58	28.4
<b>Average</b>	<b>59.68</b>	<b>50.02</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table IV shows the gross profit ratio in the year 2009 was 86.8%. It decreased in the period 2010-2017 (74.5%-51.61%). There is a fluctuation in the period 2011-2016. But in the year 2018, the gross profit ratio was 59.58%. The average gross profit ratio of Tata motors is 59.68%.

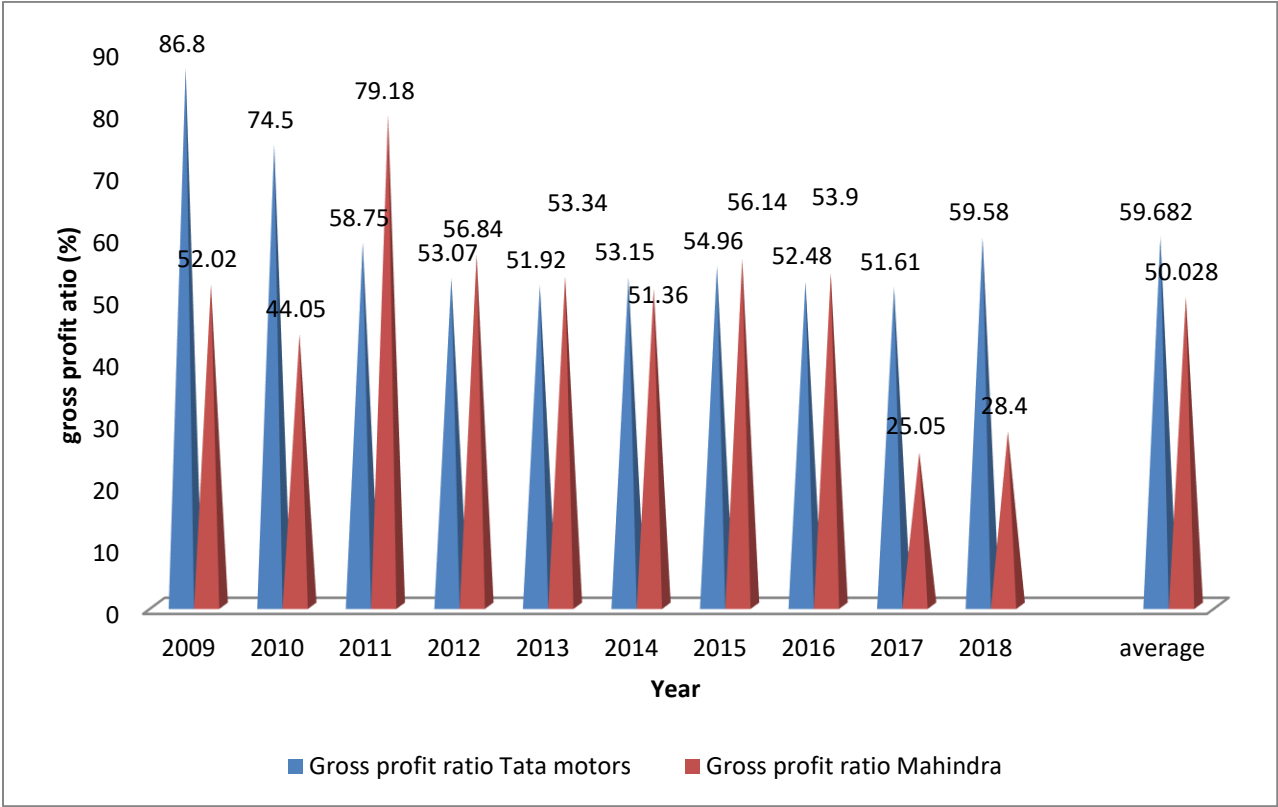
**Mahindra and Mahindra:**

The table IV shows that the gross profit ratio in the year 2009 was 52.02%.The ratios were fluctuating in the next nine years. Finally in the year 2017 and 2018, the ratio moves upwards to 25.05 -28.4, showing a change in the trend. The average gross profit ratio of Mahindra and Mahindra is 50.02%.

The gross profit position of Tata Motors and Mahindra and Mahindra was compared. The gross profit ratios for the period 2009-2018, indicates that the profitability position of Tata Motors is in better position. But the profitability position of Mahindra and Mahindra was reasonably good 50.02%.

**EXHIBIT IV**

**GROSS PROFIT RATIO -TATA MOTORS AND MAHINDRA AND MAHINDRA-  
(2009-2018)**



**TABLE V**

## ii. NET PROFIT RATIO

YEAR	TATA MOTORS %	MAHINDRA AND MAHINDRA %
2009	3.4	6.63
2010	2.7	9.23
2011	7.5	8.63
2012	8.19	4.67
2013	5.2	5.20
2014	6.05	9.27
2015	5.35	8.52
2016	4.06	7.83
2017	2.24	8.27
2018	2.31	8.94
<b>Average</b>	<b>4.7</b>	<b>7.719</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

### **Tata Motors:**

The table V shows the net profit ratio in the year 2009 was 3.4%.. There is a fluctuation in the period 2010-2018. But in the year 2017 and 2018, the net profit ratio is in the increasing trend with ratios of (2.24% -2.31%). The average net profit ratio of Tata motors is 4.7%.

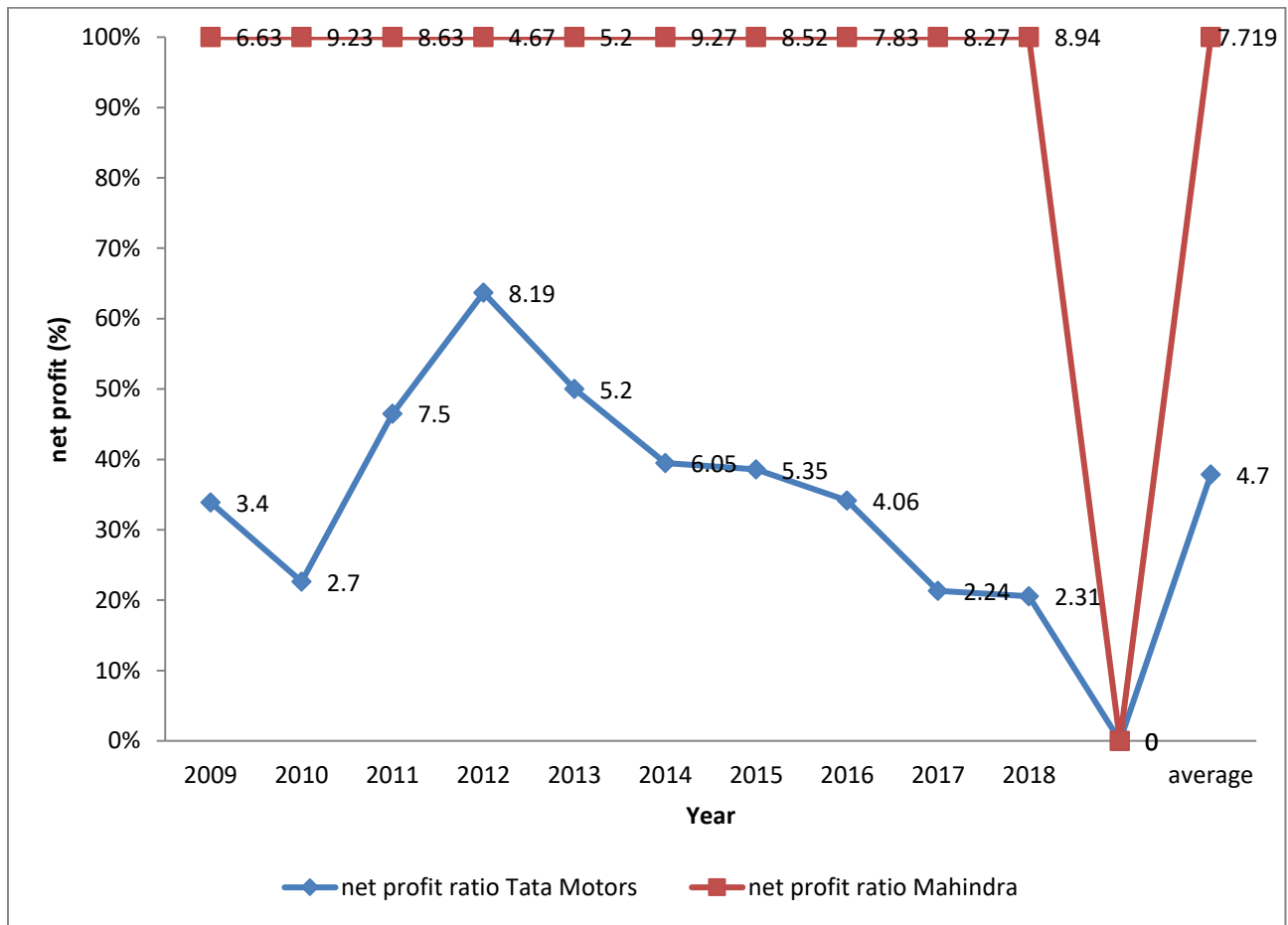
### **Mahindra and Mahindra:**

The table V shows that the net profit ratio in the year 2009 was 6.63%.The ratios were fluctuating in the next nine years. Finally in the year 2017 and 2018, the ratio moves upwards 8.27 -8.94, showing a better trend. The average net profit ratio of Mahindra and Mahindra is 7.7%.

The net profit position of Tata Motors and Mahindra and Mahindra was compared. The net profit ratios for the period 2009-2018, indicates that the profitability position of Mahindra and Mahindra is better.

## **EXHIBIT- V**

**NET PROFIT RATIO- TATA MOTORS AND MAHINDRA AND MAHINDRA- NET  
PROFIT RATIO (2009-2018)**



**3. OVERALL PROFITABILITY RATIO:**

Overall profitability ratios are the measures of overall efficiency of a business.

**TABLE VI**

**i.RETURN ON CAPITAL EMPLOYED**

<b>YEAR</b>	<b>TATA MOTORS %</b>	<b>MAHINDRA ANDMAHINDRA %</b>
2009	14.08	6.28
2010	9.48	9.16
2011	20.20	8.94
2012	18.74	7.46
2013	11.81	8.13
2014	10.96	22.29
2015	10.10	18.51
2016	7.23	18.13
2017	7.86	14.66
2018	7.36	17.43
<b>Average</b>	<b>11.78</b>	<b>13.09</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

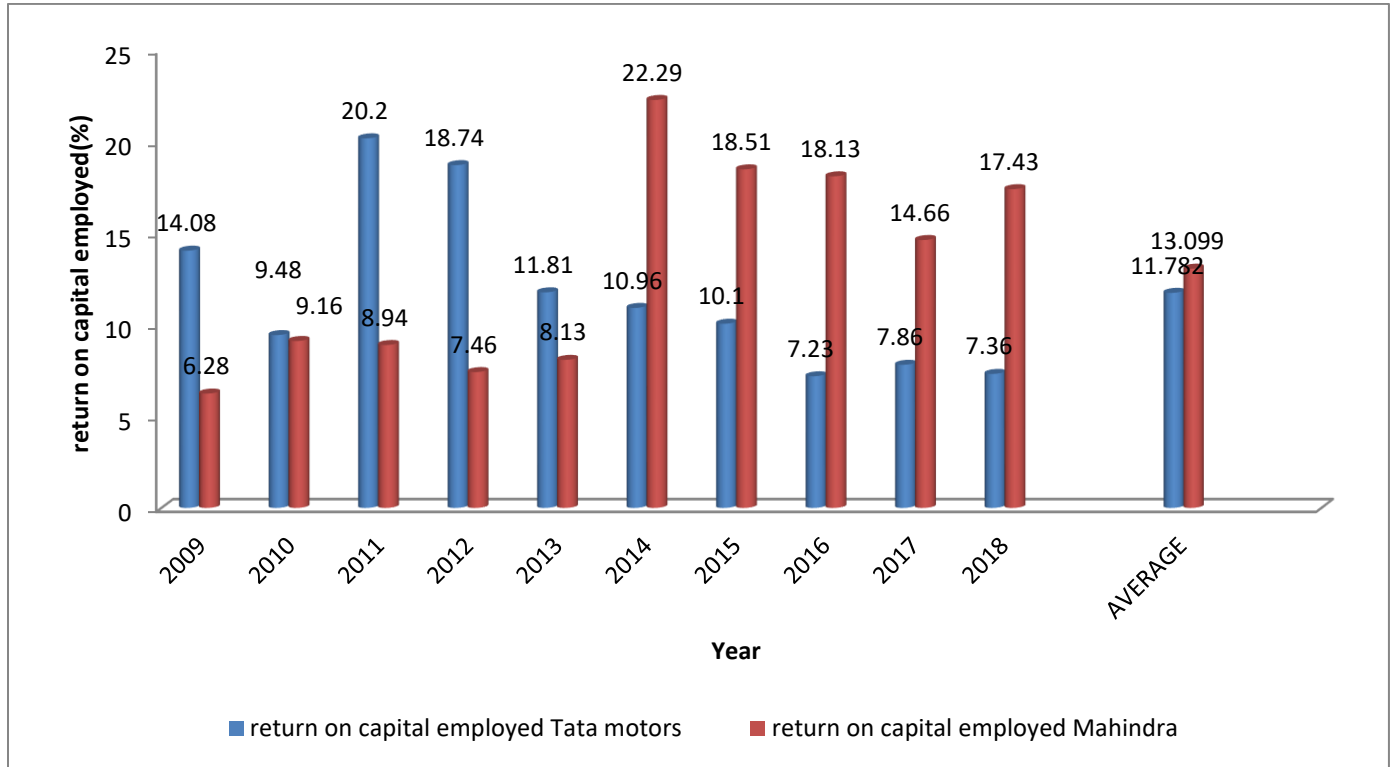
The table VI shows that the return on capital employed in the year 2009 was 14.08% and it decreased to 9.48% in 2010. Again it regained in 2011 and it was 20.20. Then from the period 2012-2018 (18.74%-7.36%), there was fluctuations in the period. It shows that there is of decreasing trend. The average return on capital employed of Tata motors is 11.78%.

**Mahindra and Mahindra:**

The table VI shows that the return on capital employed in the year 2009 was 6.28%.The ratios were fluctuating in the next nine years. Finally in the year 2017 and 2018, the ratio moves upwards 14.66 -17.43, showing a better trend. The average return on capital employed of Mahindra and Mahindra is 13.09%.The overall profitability position of Tata Motors and Mahindra and Mahindra was compared. The return on capital employed for the period 2009-2018, indicates that the overall profitability position of Mahindra and Mahindra is better .

**EXHIBIT VI**

**RETURN ON CAPITAL EMPLOYED -TATA MOTORS AND MAHINDRA AND  
MAHINDRA- (2009-2018)**



**TABLE VII**

## ii. RETURN ON NETWORTH

<b>YEAR</b>	<b>TATA MOTORS %</b>	<b>MAHINDRA AND MAHINDRA %</b>
2009	48.23	19.49
2010	31.30	26.93
2011	48.13	21.51
2012	40.88	18.13
2013	26.31	20.55
2014	21.33	22.39
2015	24.86	17.25
2016	14.66	14.29
2017	12.83	13.60
2018	9.41	14.37
<b>Average</b>	<b>27.79</b>	<b>18.85</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

### **Tata Motors:**

The table VII shows that the return on net worth in the year 2009 was 48.23% and it decreased to 31.30% in 2010. Again it regained in 2011 was 48.13. There is fluctuation in the period, from 2012-2018 (40.88%-9.41%). It shows that there is of decreasing trend. The average return on net worth of Tata motors is 27.79%.

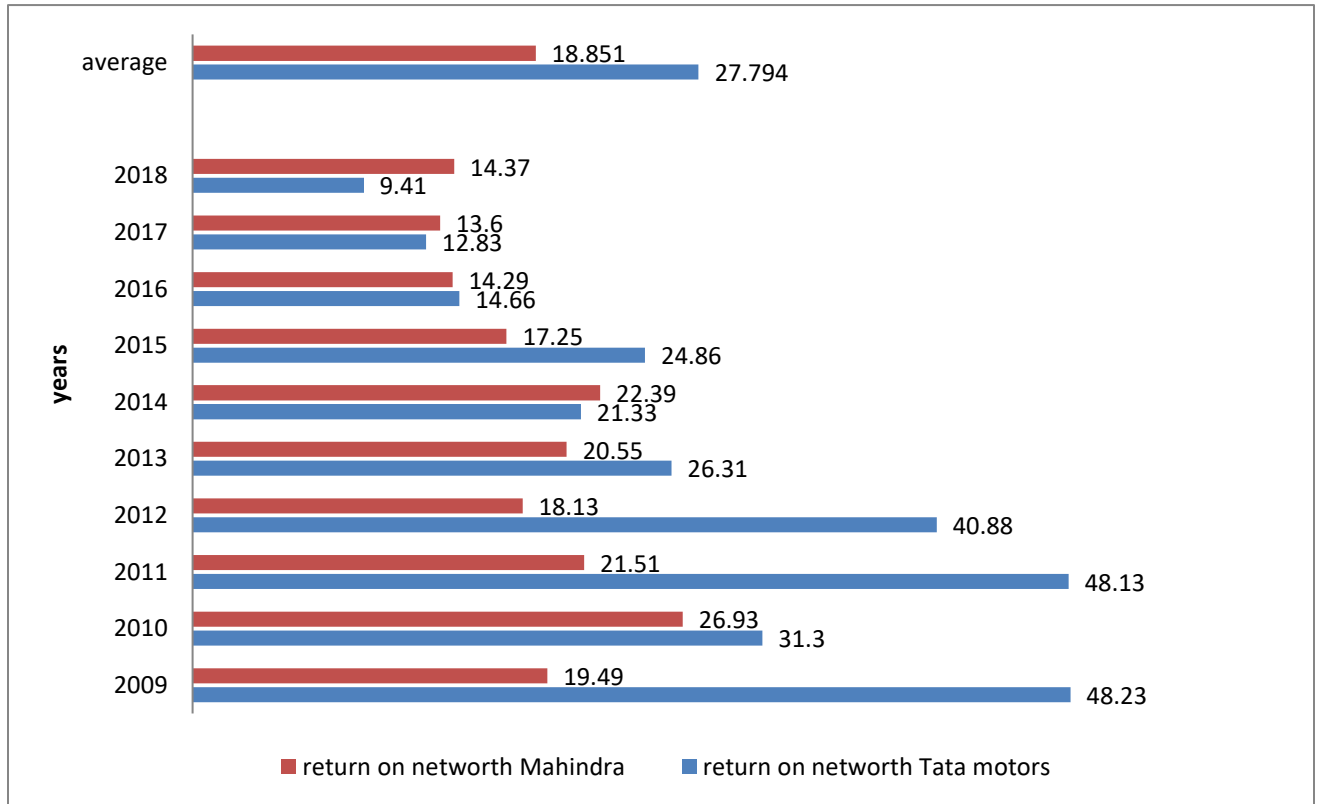
### **Mahindra and Mahindra:**

The table VII shows that the return on net worth in the year 2009 was 19.49%.The ratio were fluctuating in the next nine years. Finally in the year 2017 and 2018, the ratio declined to 14.37%. The overall profitability is not a desirable one. The average return on net worth of Mahindra and Mahindra is 18.85%.

The overall profitability position of Tata Motors and Mahindra and Mahindra was compared. The return on net worth for the period 2009-2018, indicates that the overall profitability position of Tata Motors is better .

## **EXHIBIT VII**

**RETURN ON NET WORTH- TATA MOTORS AND MAHINDRA AND MAHINDRA-  
(2009-2018)**



**4. SOLVENCY RATIO :-**

Solvency Ratio indicates a firms ability to meet the fixed interest, cost and repayment schedules associated with its long term borrowings.

**TABLE VIII**

**i. INTEREST COVERAGE RATIO**

<b>YEAR</b>	<b>TATA MOTORS (IN TIMES)</b>	<b>MAHINDRA AND MAHINDRA (IN TIMES)</b>
2009	0.07	3.79
2010	2.82	4.45
2011	5.28	4.80
2012	5.82	3.29
2013	5.01	3.23
2014	5.19	17.65
2015	5.50	18.89
2016	4.27	23.66
2017	2.93	27.16
2018	2.96	51.52
<b>Average</b>	<b>3.98</b>	<b>15.84</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table VIII shows that the interest coverage ratio in the year 2009 was 0.07% and it increased from 2.82% - 5.50% in 2010-2015. Again it falls to 4.27% in 2016. Finally in the year 2017 and 2018, the ratio moves upwards from 2.93-2.96, showing a better trend. The average interest coverage ratio of Tata motors is 3.98%.

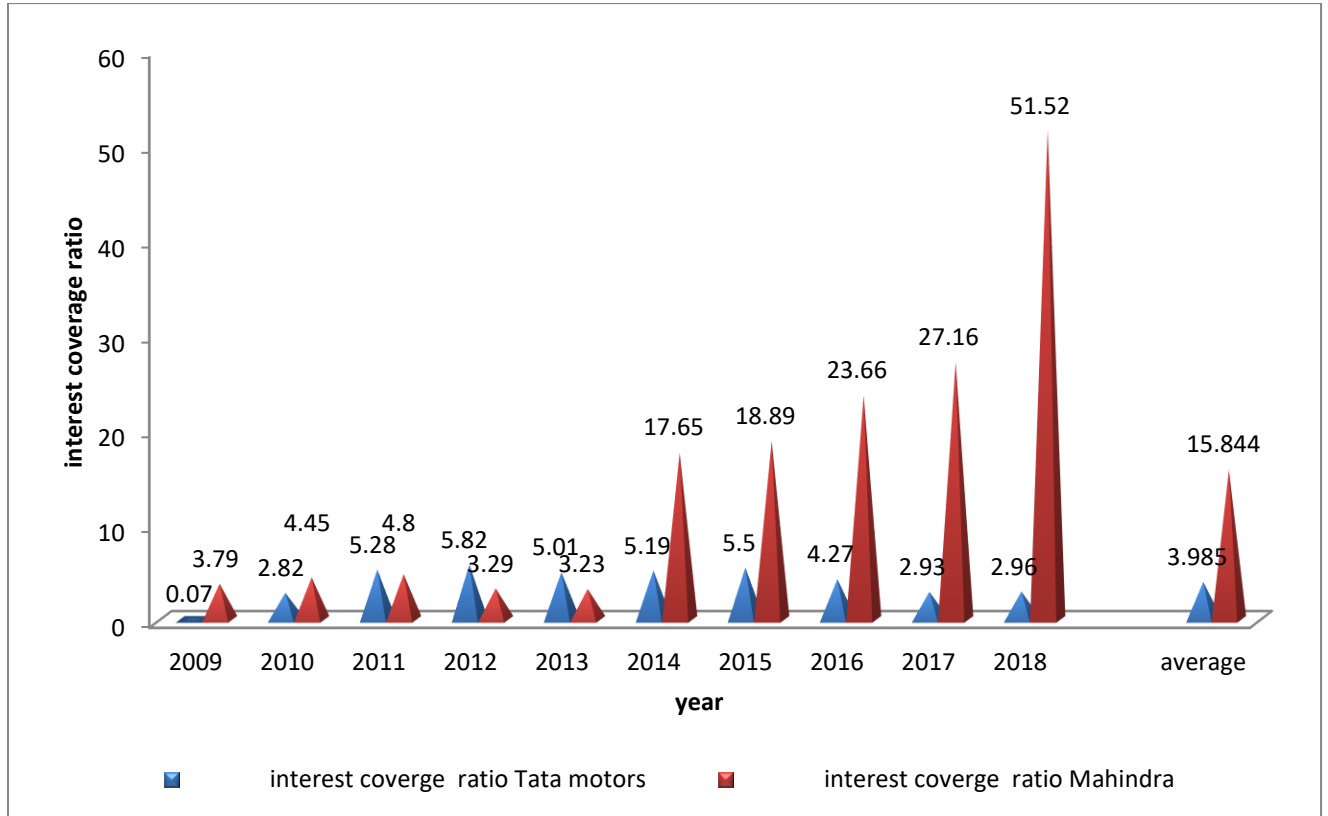
**Mahindra and Mahindra:**

The table VIII shows that the interest coverage ratio in the year 2009 was 3.79%.The ratios were fluctuating in the next nine years. Finally in the year 2017 and 2018, the ratio moves upwards from 27.16 -51.52, showing a better trend. The average interest coverage ratio of Mahindra and Mahindra is 15.84%.

The solvency position of Tata Motors and Mahindra and Mahindra was compared. The interest coverage ratios for the period 2009-2018, indicates that the solvency position of Mahindra and Mahindra is better .

**EXHIBIT VIII**

## INTEREST COVERAGE RATIO- TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)



**TABLE IX**

**ii.DEBT EQUITY RATIO**

<b>YEAR</b>	<b>TATA MOTORS (IN TIMES)</b>	<b>MAHINDRA AND MAHINDRA (IN TIMES)</b>
2009	6.73	1.75
2010	4.28	1.49
2011	1.59	0.98
2012	1.20	1.13
2013	1.16	1.16
2014	0.83	1.21
2015	1.23	1.14
2016	0.78	1.15
2017	1.28	1.35
2018	0.82	1.23
<b>Average</b>	<b>1.99</b>	<b>1.25</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table XI shows that the debt equity ratio in the year 2009 was 6.73% and it falls to 4.28% - 0.78% in 2010-2016. Finally in the year 2017 and 2018, the ratio moves downwards from 1.28-0.82, showing a decreasing trend. The average debt equity ratio of Tata motors is 1.99%.

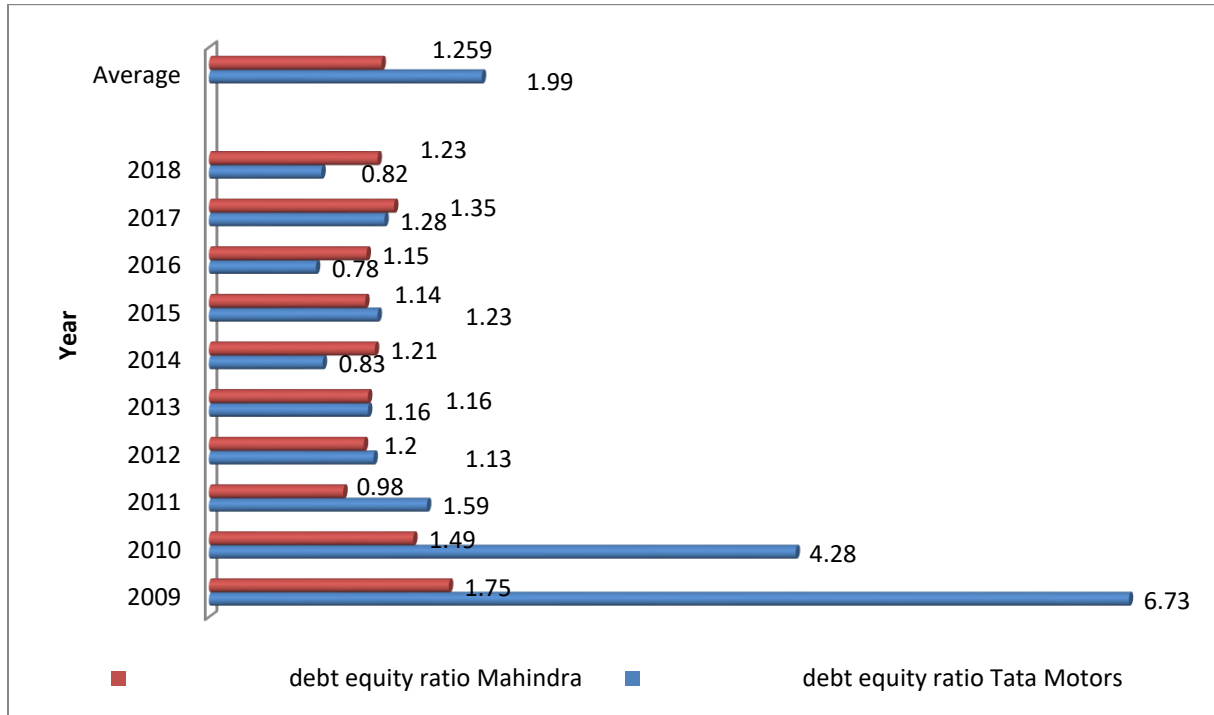
**Mahindra and Mahindra:**

The table XI shows that the debt equity ratio in the year 2009 was 1.75%.The ratios were fluctuating in the next nine years. Finally in the year 2017 and 2018, the ratio moves upwards from 1.23 -1.25, showing a better trend. The average debt equity ratio of Mahindra and Mahindra is 1.25%.

The solvency position of Tata Motors and Mahindra and Mahindra was compared. The debt equity ratios for the period 2009-2018, indicates that the solvency position of Tata Motors is better .

### EXHIBIT IX

#### DEBT EQUITY RATIO- TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)



## ACTIVITY RATIO/ EFFICIENCY RATIOS:-

This ratio measures the efficiency or effectiveness with which a firm manages its resources or assets.

**TABLE –X**

### **i. INVENTORY TURNOVER RATIO**

<b>YEAR</b>	<b>TATA MOTORS (IN TIMES)</b>	<b>MAHINDRA AND MAHINDRA (IN TIMES)</b>
2009	7.05	3.79
2010	8.11	4.45
2011	8.68	4.80
2012	9.09	3.29
2013	9.00	3.23
2014	8.54	17.65
2015	8.98	18.89
2016	8.36	23.66
2017	7.69	27.16
2018	6.99	51.52
<b>Average</b>	<b>8.24</b>	<b>12.36</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

#### **Tata Motors:**

The table X reveals the inventory turnover ratio of Tata Motors. In the year 2009 was 7.05% and it increased from 8.11% - 9.00% in 2010-2013. Again it falls 8.54%-8.36% in 2014-2016. Finally in the year 2017 and 2018, the ratio moves downwards to 7.69-6.99, showing a decreasing trend. The average inventory turnover ratio of Tata motors is 8.24%.

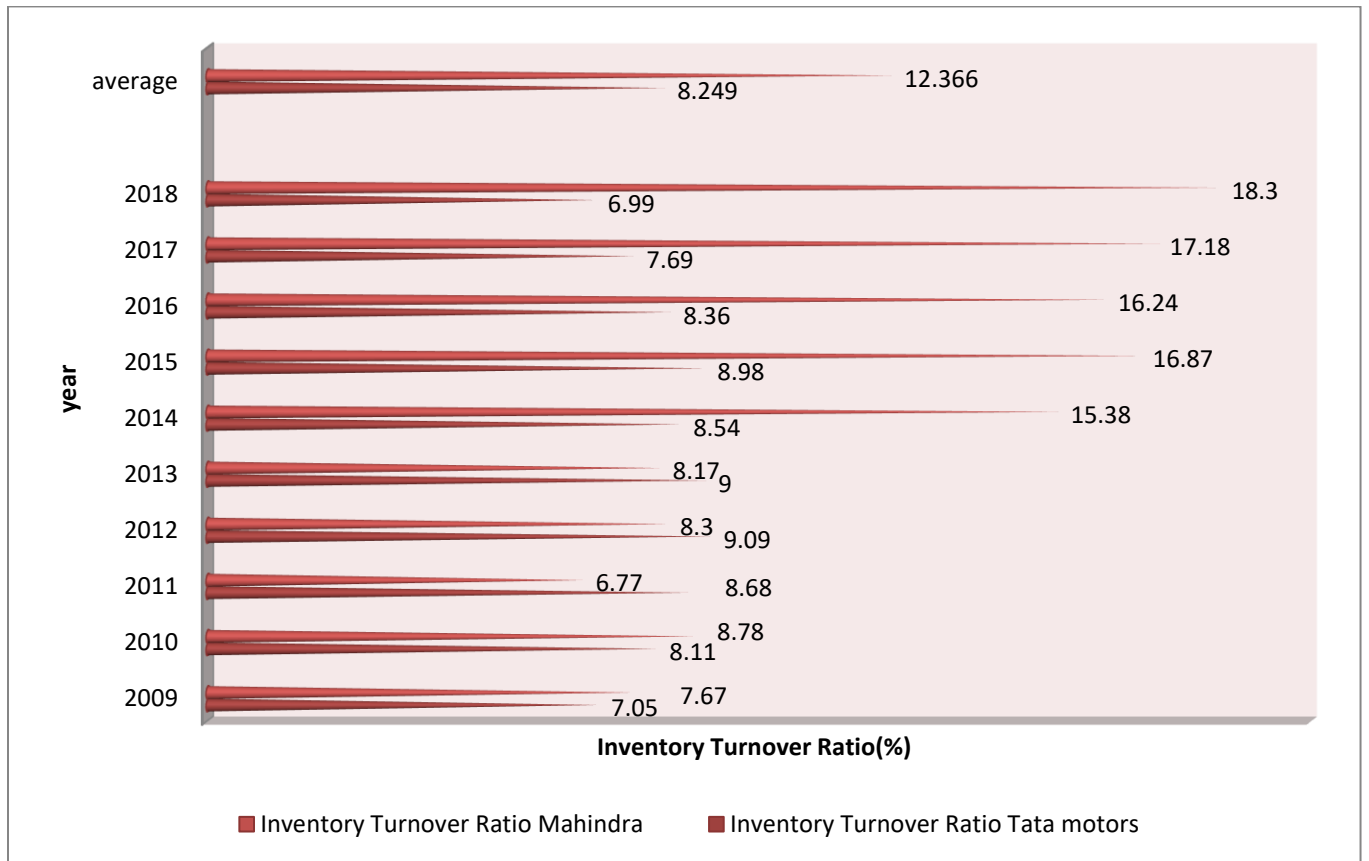
#### **Mahindra and Mahindra:**

The table X shows that the inventory turnover ratio in the year 2009 was 3.79%.The ratio decreased from 2010-2013 ,4.45% - 3.23%. It was increasing in the next five years and finally in the year 2017 and 2018, the ratio moves upwards to 27.16% -51.52%, showing a better trend. The average inventory turnover ratio of Mahindra and Mahindra is 12.36%.

The activity ratios of Tata Motors and Mahindra and Mahindra was compared. The inventory turnover ratios for the period 2009-2018, indicates that the inventory management of Mahindra and Mahindra is efficiently done.

## EXHIBIT X

### INVENTORY TURNOVER RATIO - TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)



**TABLE – XI**

**ii. DEBTORS TURNOVER RATIO**

<b>YEAR</b>	<b>TATA MOTORS (IN TIMES)</b>	<b>MAHINDRA AND MAHINDRA (IN TIMES)</b>
2009	7.05	7.2
2010	8.11	10.8
2011	8.68	8.8
2012	9.09	11.11
2013	9.00	13.2
2014	8.54	12.92
2015	8.98	13.14
2016	8.36	13.83
2017	7.69	11.63
2018	6.99	10.8
<b>Average</b>	<b>8.25</b>	<b>11.34</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table XI, shows that the debtors turnover ratio in the year 2009 was 7.05% and it increased from 8.11% -9.00% in the period 2010-2013. Again it falls from 8.54% to 6.99% in 2014 -2018. It shows that there is of decreasing trend. The average debtors turnover ratio of Tata motors is 8.25%.

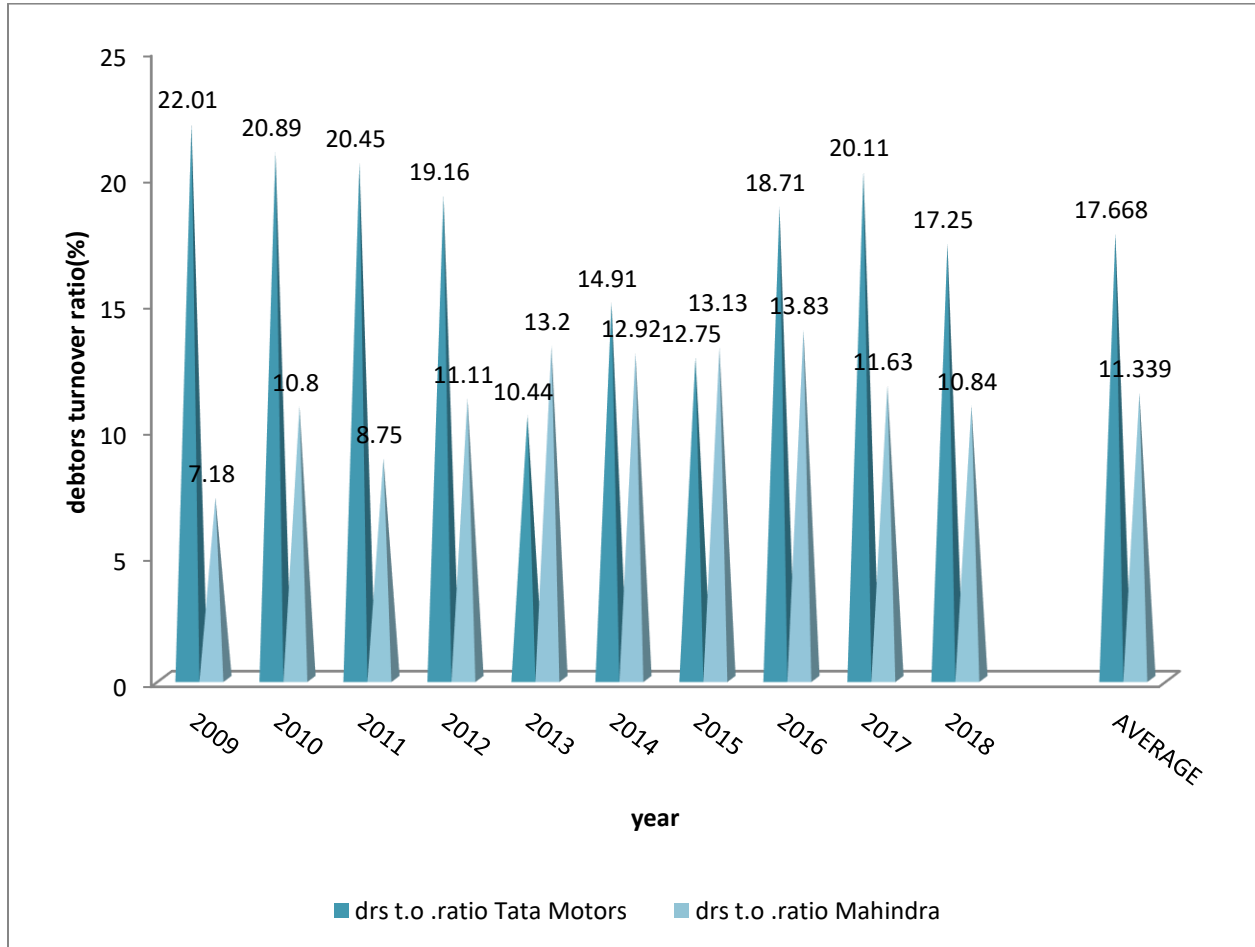
**Mahindra and Mahindra:**

The table XI, shows that the debtors turnover ratio in the year 2009 was 7.2%.The ratios were fluctuating in the next nine years. Finally in the year 2018, the ratio increased to 10.8%. The average debtors turnover ratio of Mahindra and Mahindra is 11.34%.

The Debtors Turnover Ratio of Tata Motors and Mahindra and Mahindra was compared. The debtors turnover ratio for the period 2009-2018, indicates that the Debtors of Mahindra and Mahindra is efficiently managed.

### EXHIBIT XI

### DEBTORS TURNOVER RATIO - TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)



**TABLE – XII**

**iii. AVERAGE COLLECTION PERIOD**

<b>YEAR</b>	<b>TATA MOTORS (IN DAYS)</b>	<b>MAHINDRA AND MAHINDRA (IN DAYS)</b>
2009	25	51
2010	29	34
2011	20	42
2012	18	33
2013	21	28
2014	17	28
2015	18	28
2016	18	26
2017	19	31
2018	35	34
<b>Average</b>	<b>25</b>	<b>33.5</b>

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

The table XII shows that the collection period in the year 2009 was 25 days and it increased to 29 days in 2010. It was fluctuating for the period 2010-2012. During the period 2013 -2018, it started increasing from 21days -35days. It shows that there is an increasing trend. The average average collection period of Tata motors is 25days.

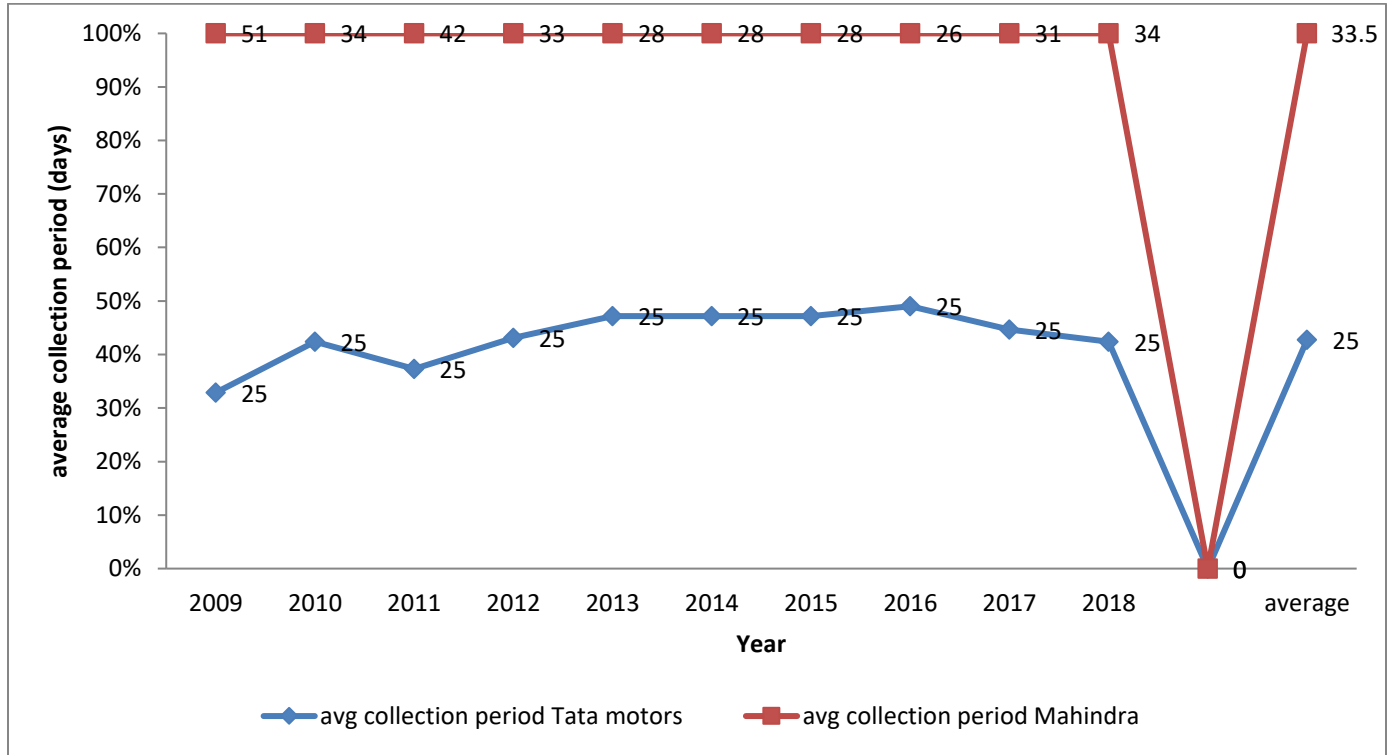
**Mahindra and Mahindra:**

The table XII shows that the collection period in the year 2009 was 51 days. The ratios were fluctuating from 2010-2015 from 34 days-26 days. Finally in the year 2017 and 2018 it was 31 and 34 days. The ratio increased to 34 days in 2018. It shows , the increasing trend. The average collection period of Mahindra and Mahindra is 33.5 days.

The average collection period of Tata Motors and Mahindra and Mahindra was compared. The average collection period for the period 2009-2018, indicates that the average collection period of Tata Motors is less. It shows the efficient management of debtors.

## EXHIBIT XII

### AVERAGE COLLECTION PERIOD -TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)



**B.OVERALL FINANCIAL PERFORMANCE OF THE COMPANIES – COMPARISON OF TATA MOTORS AND MAHINDRA AND MAHINDRA AUTOMOBILE COMPANIES**

**TABLE XIII**

CATEGORY	VARIABLES	MEAN	
		TATA MOTORS	MAHINDRA & MAHINDRA
Liquidity ratio	Current ratio	0.87	1.4
	Liquid ratio	0.61	1.11
	Absolute liquid ratio	26.57	17.31
Profitability ratio	Gross profit ratio	59.68	50.02
	Net profit ratio	4.7	7.719
	Return on capital employed	11.78	13.09
	Return on net worth	27.79	18.85
Solvency ratio	Interest coverage ratio	3.98	15.84
	Debt -equity ratio	1.99	1.25
Activity ratio	Inventory turnover ratio	8.24	12.36
	Debtors turnover ratio	8.25	11.34
	Average collection period	25	33.5

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

**Tata Motors:**

From the table XIII, it is understood that the average of liquidity ratios ( 0.87,0.61 and 26.57) which is less than the normal current ratio of 2:1 except in absolute liquid ratio. It shows that the company has increasing trend during this study period. The average profitability ratios ( gross profit , net profit , return on capital employed and return on net worth ) of Tata Motors shows an increasing trend (59.68, 4.7, 11.78 and 27.79). It indicates that the profitability position of Tata Motors is good. The solvency ratio of interest coverage ratio is 3.98 and debt equity ratio is 1.99. The Tata Motors was effectively managing the current assets. It will effectively utilize the assets, it collects the debts from debtors smartly and working capital is also effectively used. The overall mean of current ratios calculated by the Tata Motors results in good average. Profitability and solvency of Tata Motors is better.

**Mahindra and Mahindra:**

From the table XIII, it is understood that the average liquidity ratios ( 1.4, 1.11 and 17.31). It shows that the company enjoys credit worthiness during this research study. The average profitability ratios (gross profit, net profit, return on capital employed and return on net worth) of

Mahindra and Mahindra shows an increasing trend ( 50.02,7.72,13.09 and 18.85) from 2009-2018. It indicates that the profitability position of Mahindra and Mahindra is satisfactory. The solvency ratio of interest coverage ratio is 15.84 and debt equity ratio 1.25 is good. The solvency position is good.

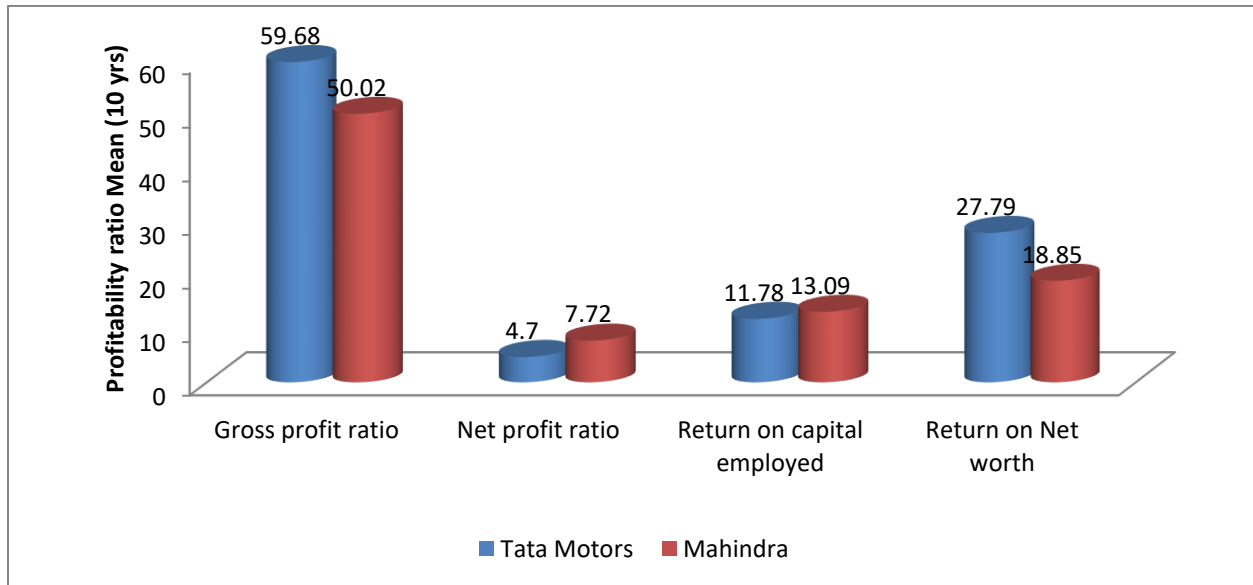
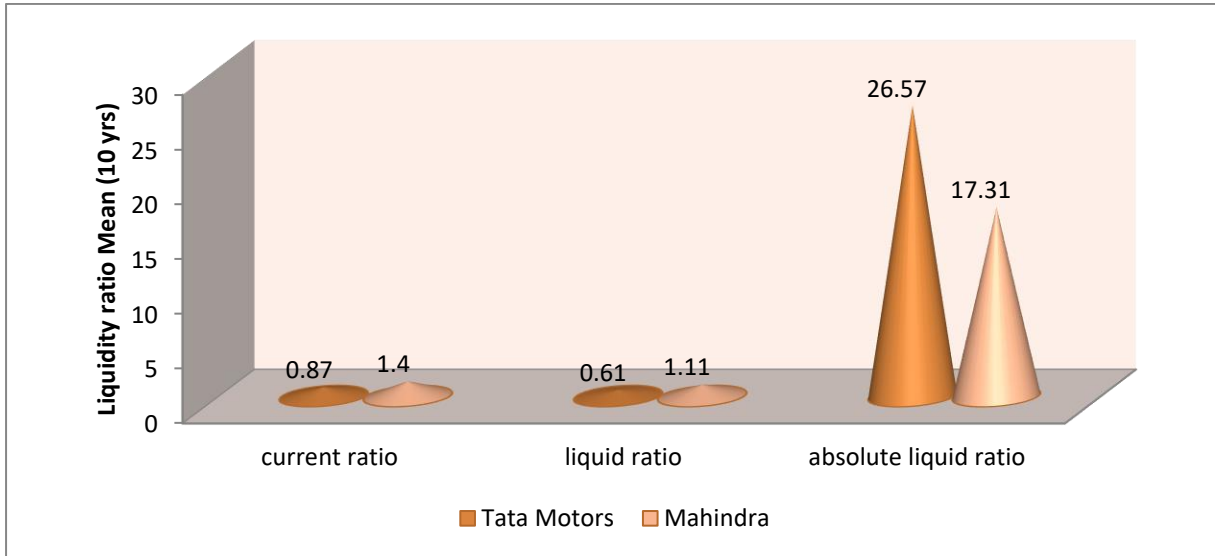
The current assets like stock and debtors are managed effectively. The stock turnover ratio and debtors turnover ratio shows that the stock and debtors are managed effectively though average collection period is 33 days.

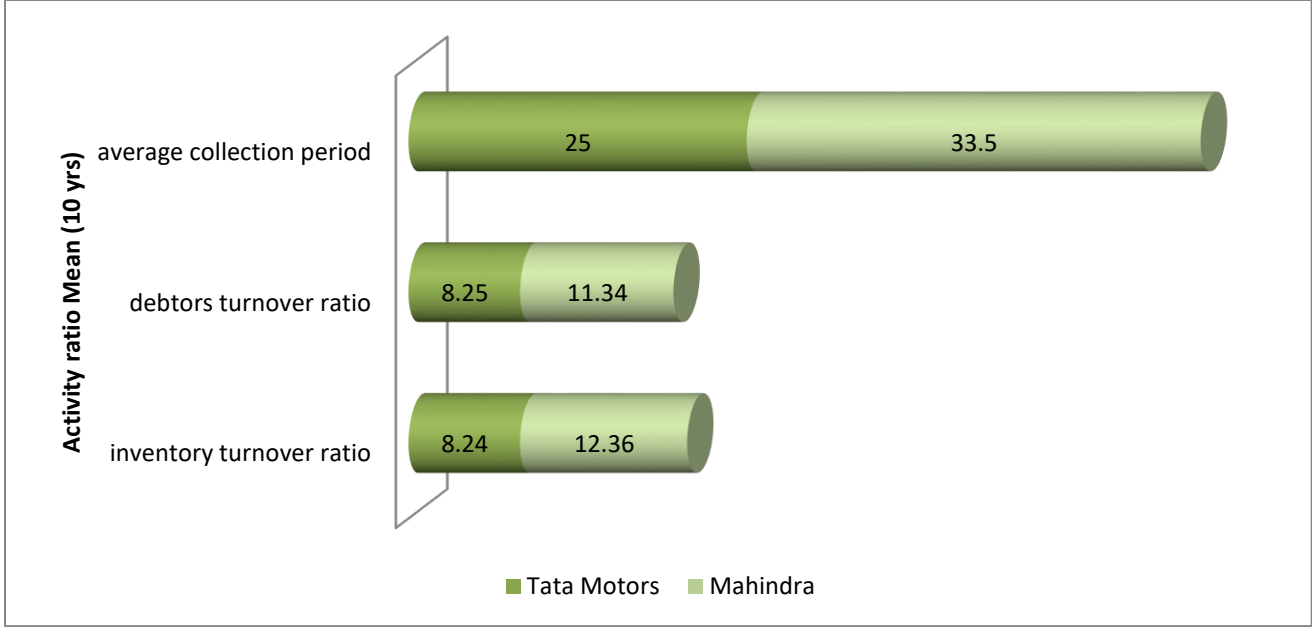
In Mahindra and Mahindra, the current ratio, liquid ratio, net profit ratio, return on capital employed, interest coverage ratio, inventory turnover ratio and debtors turnover ratio are in good position than the Tata Motors.

When, the overall performance of both the companies was compared, Mahindra and Mahindra was in a better position.

### EXHIBIT XIII

#### TATA MOTORS AND MAHINDRA AND MAHINDRA-MEAN (LIQUIDITY, PROFITABILITY, SOLVENCY AND ACTIVITY RATIO) (2009-2018)





### C.Z- Score :-

Z-score analysis helps to estimate the financial health of the companies.

**TABLE – XIV**

**THE ESTIMATION OF FINANCIAL HEALTH OF BOTH THE AUTOMOBILE COMPANIES ( Z-SCORE ANALYSIS)**

**Tata Motors and Mahindra and Mahindra- comparison of financial health ( Z-Score Analysis)**

<b>year</b>	<b>Tata Motors (Z Score)</b>	<b>Mahindra and Mahindra (Z Score)</b>	<b>Better Position</b>
2009	1.68	2.45	Mahindra &Mahindra
2010	4.75	2.97	Tata Motors
2011	3.85	3.27	Tata Motors
2012	2.52	3.59	Mahindra & Mahindra
2013	5.11	3.63	Tata Motors
2014	3.23	3.03	Tata Motors
2015	3.53	2.74	Tata Motors
2016	3.29	3.25	Tata Motors
2017	2.93	2.62	Tata Motors
2018	2.88	2.65	Tata Motors

**Source: Tata Motors and Mahindra and Mahindra Annual reports 2009-2018**

#### **Tata Motors:**

In this analysis, the Tata Motors score is above 2.99. In 2009 it had reached the lowest score 1.68. So, on 2009 the Tata Motors was not safe for investment on basis of financial health. The financial health was in the “grey zone” in the year 2012, 2017, 2018 only. It indicates that the Z-Score is lower than the standard rate of 2.99. Hence it is pretty sure that in all the years Tata Motors enjoys good financial health. Overall financial health is good.

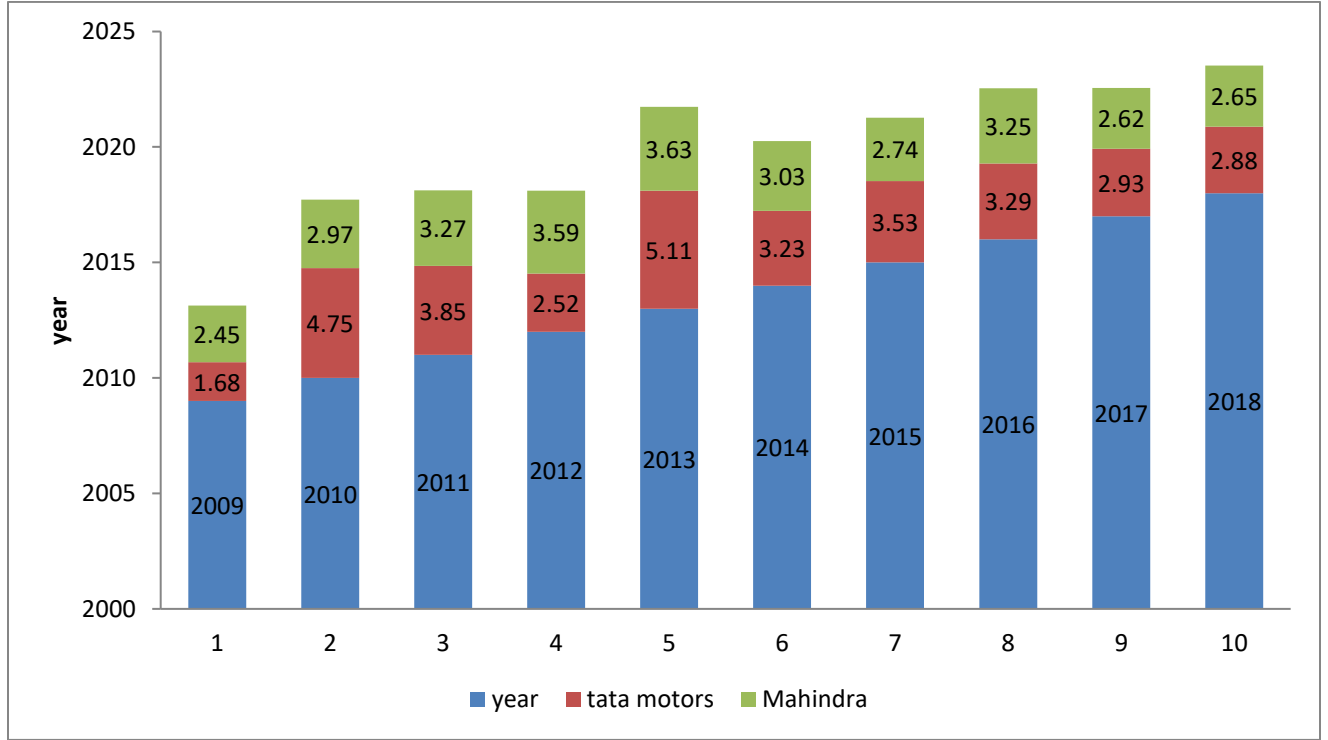
#### **Mahindra and Mahindra:**

In this analysis, the Mahindra and Mahindra score is above the standard score of 2.99. In 2009 it had reached the lowest score of 2.45. So, the Mahindra and Mahindra was not safe for investment on basis of financial health. The financial health is in the “ grey zone” in the years (2015,2017 and 2018) . It indicates that the Z- Score was higher than the standard rate of 2.99 in all the other years. Hence it is pretty sure that Mahindra and Mahindra enjoys good financial health. Overall financial health is good.

In this analysis, both the Tata Motors and Mahindra and Mahindra Score is above the standard core of 2.99. While comparing to Mahindra and Mahindra, Tata Motors company's financial health is better. Z scores indicates that the both Tata Motors and Mahindra and Mahindra company's always maintained a safe zone of above 2.99 indicating good financial health during the year 2009-2018. But Z score of Mahindra and Mahindra Limited shows increasing trend (2009 and 2012-2.45-3.59). Hence, it is pretty sure that the Tata Motors enjoys good financial health than Mahindra and Mahindra.

**EXHIBIT XIV**

**TATA MOTORS AND MAHINDRA AND MAHINDRA-FINANCIAL HEALTH  
INDICATOR-Z SCORE ANALYSIS (2009-2018)**



#### **D.Trend Analysis:-**

The trend projection method is the most classical method of business forecasting, which is concerned with the movement of variables through time.

**TABLE-XV**

#### **TREND ANALYSIS – SALES - TATA MOTORS AND MAHINDRA AND MAHINDRA**

<b>YEAR</b>	<b>TATA MOTORS (Rs in crores)</b>	<b>MAHINDRA AND MAHINDRA (Rs in crores)</b>
2009	74762	27117
2010	94835	33185
2011	126414	39548
2012	170678	63012
2013	193584	74014
2014	236626	78231
2015	266345	75490
2016	277661	80462
2017	274492	88983
2018	295409	93265
<b>2019</b>	<b>345404</b>	<b>106402</b>
<b>2020</b>	<b>371645</b>	<b>113870</b>
<b>2021</b>	<b>397885</b>	<b>121337</b>
<b>2022</b>	<b>424126</b>	<b>128805</b>
<b>2023</b>	<b>450367</b>	<b>136272</b>
<b>2024</b>	<b>476607</b>	<b>143740</b>

#### **TATA MOTORS:**

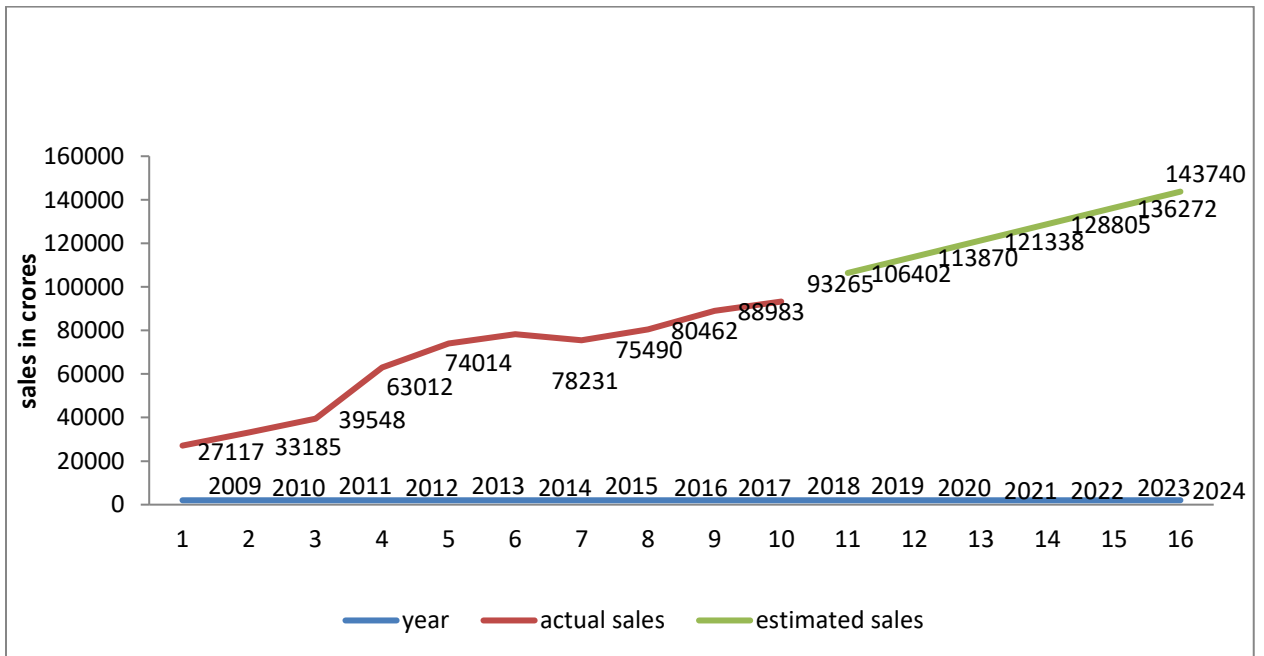
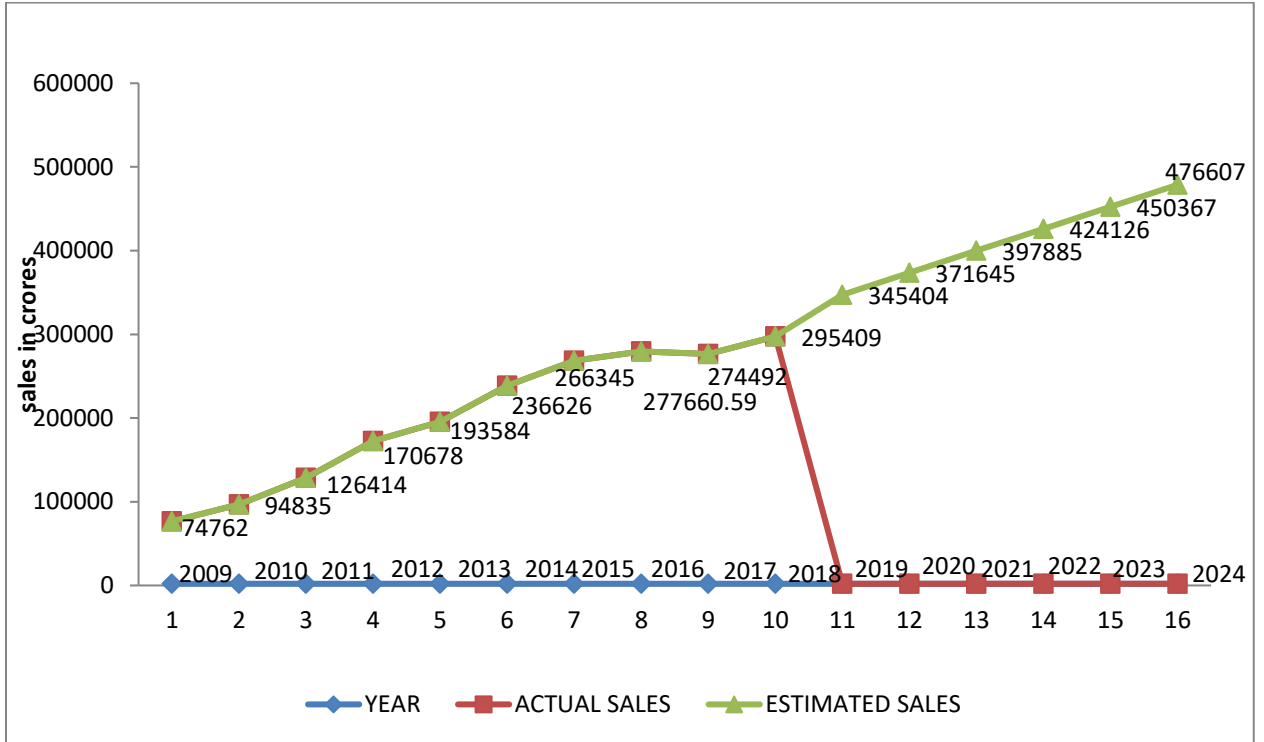
The table XV reveals the Tata motors actual sales in 2009 was 74762crores, the sales was increasing continuously from 2009 to 2018 was 74762– 295409. For the future forecast of the period of 2019-2024, the estimated sales was 345404 – 476607 crores , which is increasing. It shows that the sales of Tata Motors will get increased from 2019-2024.

#### **MAHINDRA AND MAHINDRA:-**

The table XV reveals the Mahindra and Mahindra actual sales in 2009 was 27117 crores, the sales was increasing continuously from 2010 to 2014 was 33185 – 78231. In 2015 there is of fall was 75470. It again regained from 2016-2018 was 80462 – 93265. For the future forecast of the period of 2019-2024, the estimated sales was 106402 - 143740 crores ,there is of increasing trend .It shows that the sales of Mahindra and Mahindra will get increased from 2019-2024.

**EXHIBIT XV**

**TREND ANALYSIS - SALES- TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)**



**TABLE-XVI**

**TREND ANALYSIS - GROSS PROFIT -TATA MOTORS AND MAHINDRA AND MAHINDRA**

<b>YEAR</b>	<b>TATA MOTORS (Rs in crores)</b>	<b>MAHINDRA AND MAHINDRA (Rs in crores)</b>
2009	62188	13030
2010	68275	13692
2011	71758	29190
2012	87926	33766
2013	98046	36664
2014	123773	38011
2015	144447	40393
2016	145723	43376
2017	139201	20989
2018	176023	26182
<b>2019</b>	<b>183517</b>	<b>38250</b>
<b>2020</b>	<b>196773</b>	<b>39835</b>
<b>2021</b>	<b>210028</b>	<b>41421</b>
<b>2022</b>	<b>223283</b>	<b>43006</b>
<b>2023</b>	<b>236538</b>	<b>44592</b>
<b>2024</b>	<b>249794</b>	<b>46177</b>

**TATA MOTORS:**

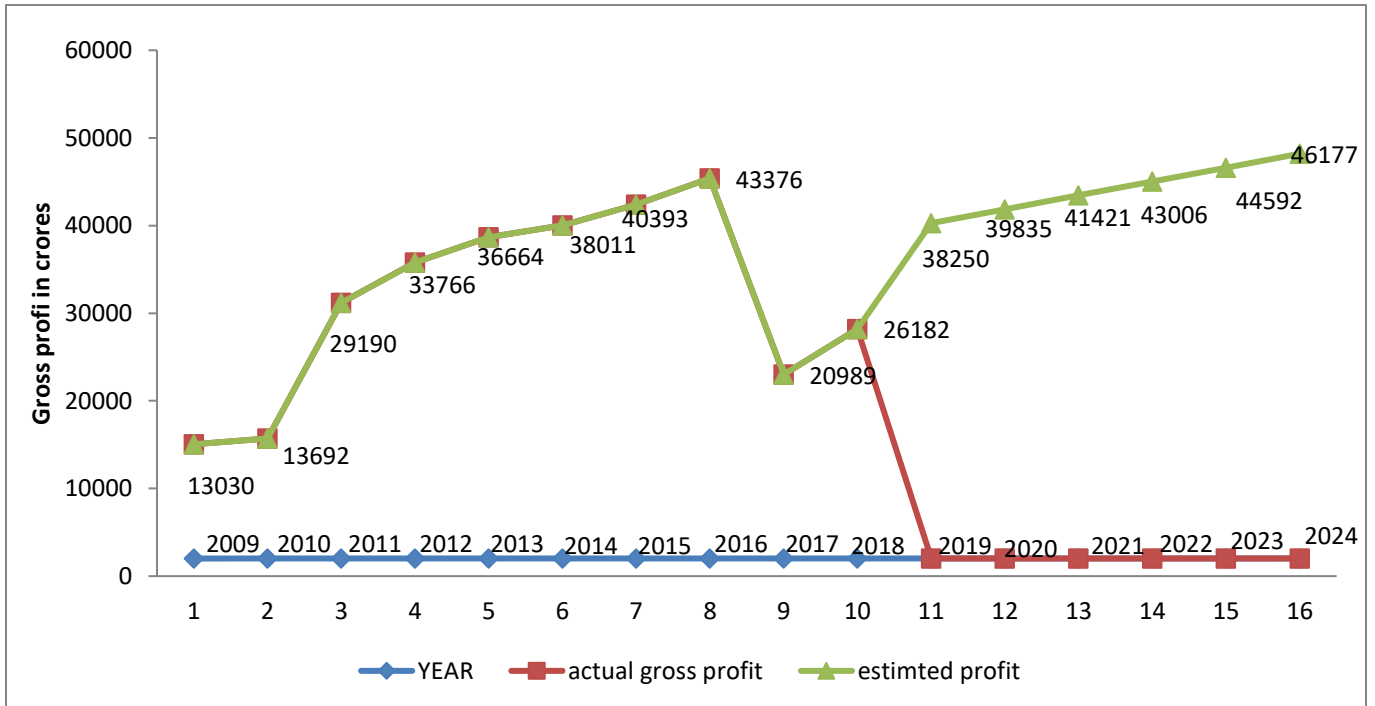
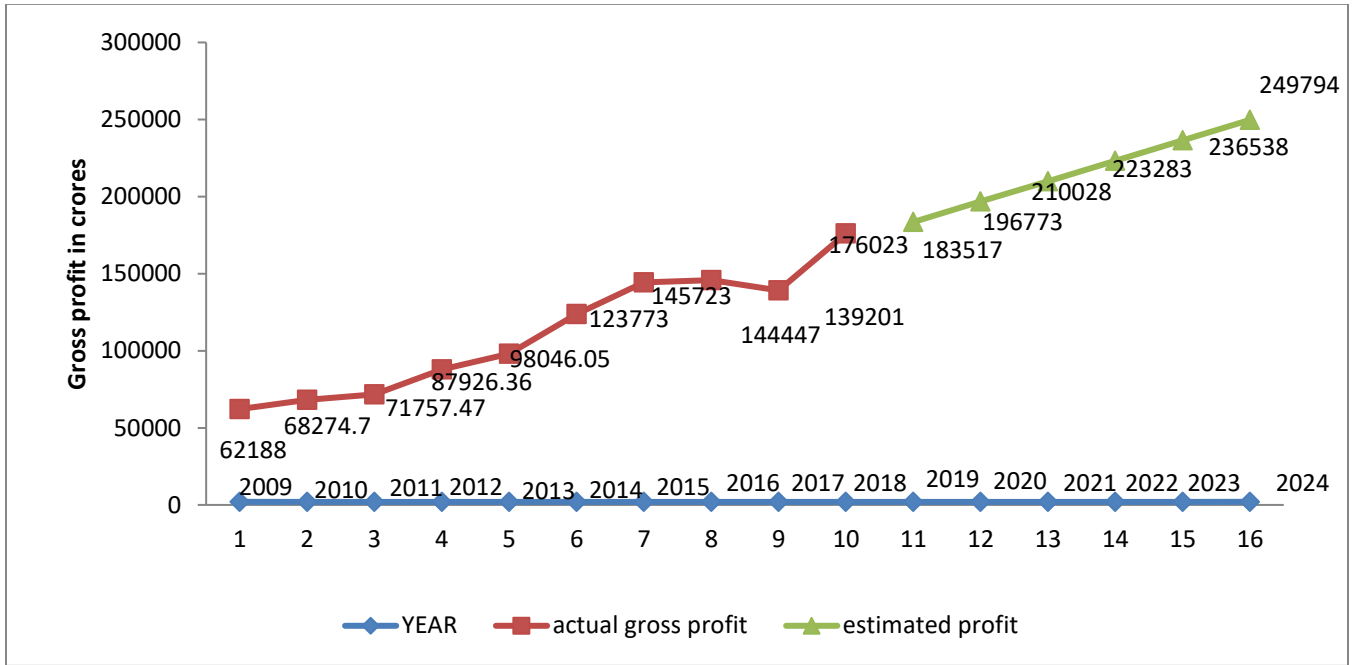
The table XVI reveals the Tata Motors actual gross profit in 2009 was 62188 crores, the profit was increasing continuously from 2010 to 2014 was 68275 – 123773. In 2015 there is of fall was 144447. It again regained from 2016-2018 was 1457223 - 176023. For the future forecast of the period of 2019-2024, the estimated gross profit was 183517 - 249794 crores, there is of increasing trend .It shows that the gross profit of Tata motors will get increased from 2019-2024.

**MAHINDRA AND MAHINDRA:**

The table XVI reveals the Mahindra and Mahindra actual gross profit in 2009 was 13030 crores, the profit was increasing continuously from 2010 to 2016 was 13692 – 43376. In 2017 - 2018 there is of fall was 20989 - 26182 . In future forecast of gross profit which is of increasing trend .It shows that the gross profit of Mahindra and Mahindra will get increase from 2019-2024.

## EXHIBIT XVI

### TREND ANALYSIS - GROSS PROFIT- TATA MOTORS AND MAHINDRA AND MAHINDRA (2009-2018)



**TABLE-XVII**

**TREND ANALYSIS –NET PROFIT -TATA MOTORS AND MAHINDRA AND MAHINDRA**

<b>YEAR</b>	<b>TATA MOTORS (Rs in crores)</b>	<b>MAHINDRA AND MAHINDRA (Rs in crores)</b>
2009	28808	7677
2010	33676	8029
2011	35204	14697
2012	44268	17184
2013	55129	18293
2014	69069	18367
2015	88457	19033
2016	107232	20585
2017	95944	20989
2018	121414	26182
<b>2019</b>	<b>127119</b>	<b>26848</b>
<b>2020</b>	<b>137883</b>	<b>28620</b>
<b>2021</b>	<b>148646</b>	<b>30391</b>
<b>2022</b>	<b>159410</b>	<b>32163</b>
<b>2023</b>	<b>170173</b>	<b>33935</b>
<b>2024</b>	<b>180937</b>	<b>35706</b>

**TATA MOTORS:**

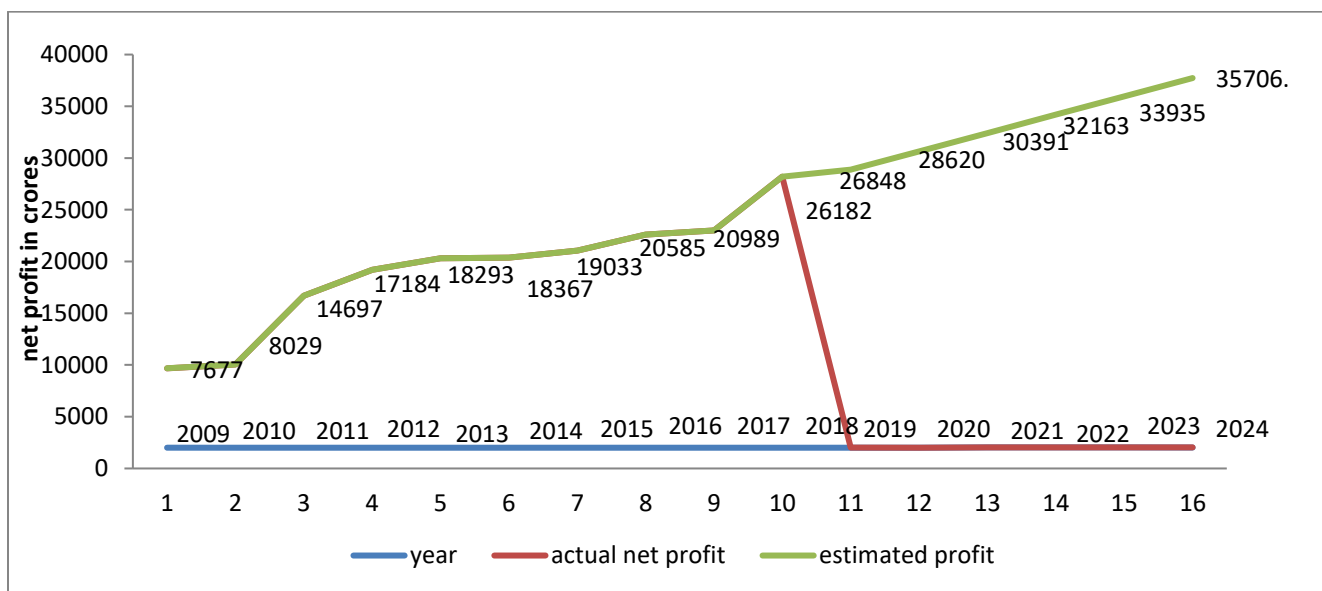
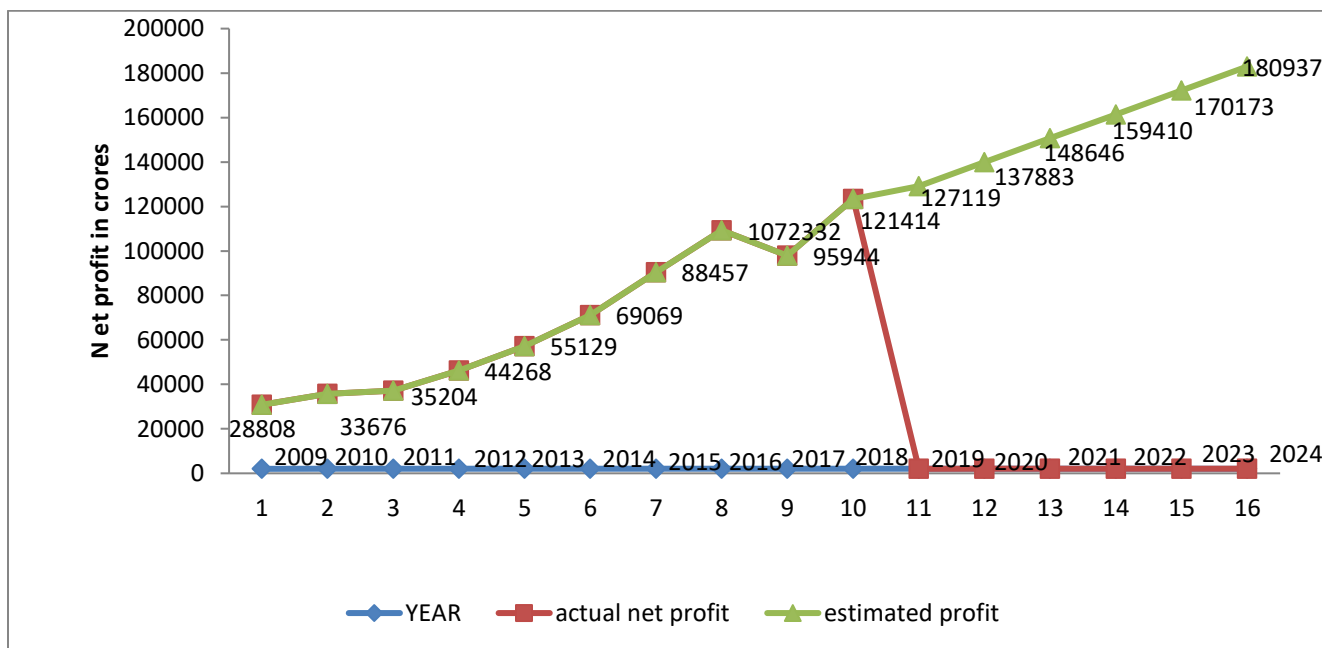
The table XVII reveals the Tata Motors actual net profit in 2009 was 28808 crores, the profit was increasing continuously from 2010 to 2016 was 33676 – 107232. In 2017 -2018 there is of fluctuating . In future forecast of net profit in 2019-2024 was 127119 -180937 which is of increasing trend .It shows that the net profit of Tata Motors will get increase from 2019-2024.

**MAHINDRA AND MAHINDRA:**

The table XVII reveals the Mahindra and Mahindra actual net profit in 2009 was 7677 crores, the profit was increasing continuously from 2010 to 2017 was 8029 – 20989. In 2018 it falls to 26182 . In future forecast of net profit in 2019-2024 was 26848 - 35706 which is of fluctuating trend .It shows that the net profit of Mahindra and Mahindra will get fluctuate from 2019-2024.

## EXHIBIT XVII

### TREND ANALYSIS - NET PROFIT- TATA MOTORS AND MAHINDRA AND MAHINDRA(2009-2018)





# **FINDINGS AND**

# **CONCLUSION**

## **CHAPTER – V**

### **FINDINGS AND CONCLUSION**

In findings and conclusion section a report of the findings of the study based on the methodology applied to gather information is presented. The findings of the research should be arranged in a logical sequence without bias or interpretation. “**FINANCIAL PERFORMANCE OF SELECT AUTOMOBILE COMPANIES (WITH REFERENCE TO TATA MOTORS AND MAHINDRA AND MAHINDRA**” research study was carried out using the secondary data collected.

**The findings of the analysis are presented in the following headings:**

- A. The liquidity, profitability, overall profitability, solvency and efficiency of Tata Motors and Mahindra and Mahindra companies.
- B. The overall financial performance of Tata Motors and Mahindra and Mahindra companies.
- C. The assessment of financial health of both the companies by applying z- score analysis.

**A. The liquidity, profitability, overall profitability, solvency and efficiency of Tata Motors and Mahindra and Mahindra companies:**

The ratio analysis for the liquidity, profitability, overall profitability , solvency and efficiency of Tata Motors and Mahindra and Mahindra companies from 2009-2018, indicates the following:

The liquidity ratios of Mahindra and Mahindra was better when compared to Tata Motors. It has good current ratio of (1.4) and liquid ratio of (1.11) during the study period.

The profitability ratios of Mahindra and Mahindra was in good position when compared with Tata Motors Company. It had good net profit of (7.719) and return on capital employed is (13.09) during the study period.

The solvency ratios interest coverage ratio of Tata Motors is 3.98 and Mahindra and Mahindra is 15.84. Mahindra and Mahindra is in better position when compared with the Tata Motors.

In the Activity ratios inventory turnover ratio is 12.36 , debtors turnover ratio is 11.33 and average collection period is 33.5 for Mahindra and Mahindra is better when compared with the Tata Motors.

### **The financial performance of Tata Motors and Mahindra and Mahindra companies:**

Generally, the overall financial performance of Mahindra and Mahindra is in better position when compared with the Tata Motor . The profitability ratio of Mahindra and Mahindra shows an increasing trend during the study period. The Liquidity, solvency and activity is in a better position in Mahindra and Mahindra than Tata Motors.

### **The assessment of financial health and future forecast of the companies by applying Z – Score and Trend analysis:**

The assessment of financial health and future forecast of the companies by applying Z-score and trend analysis.

In the Z-score analysis, the financial health of Mahindra and Mahindra is in a safer zone when compared with Tata Motors for Mahindra and Mahindra The majority of the Z score value indicates that it is above the standard Z score of 2.99, except in 2009,2015,2017 and 2018. Tata Motors shows good Z score in all the years except in the years 2009,2012,2017 and 2018. Hence it is pretty sure that the Tata Motors was also having a good financial health. Mahindra and Mahindra is on the safer zone for investment.

In the financial forecast of the companies it comes to know that there is chance of increase in sales, gross profit and net profit of both the Tata Motors and Mahindra and Mahindra during the period from 2019-2024. During the period of study 2009-2018, it shows that Mahindra and Mahindra is in the leading position.

**On the basis of research findings of the overall financial performance of both the companies, the following suggestions are given**

When compared of overall financial performance of both the companies,

the Tata Motors has good absolute liquid ratio of ( 26.57) , gross profit of (59.68), return on net worth of (27.79) ,debt equity ratio of (1.99) and average collection period of (25 days).

Hence it is suggested that Tata Motors has to improve its current ratio, liquid ratio, net profit ratio, interest coverage ratio, return on capital employed, stock turnover and debtor turnover ratios.

Mahindra and Mahindra has good current ratio of (1.4), liquid ratio of (1.11), net profit ratio of (7.72), return on capital employed of (13.09), interest coverage of (15.84), inventory turnover of (12.36) and debtor turnover of (11.34). Hence it is suggested that Mahindra and Mahindra has to improve its absolute liquid ratio, gross profit ratio, return on net worth, debt equity ratio and average collection period.

When comparing of Tata Motors and Mahindra and Mahindra companies , the overall financial performance of Mahindra and Mahindra is in good position.

## **CONCLUSION:**

Financial performance is considered important for the better performance of the companies.

Therefore, it is essential to be maintained clearly by the companies so that the performance of the company can be developed and maintained efficiently. Efficient management of finance is very important for the success of an enterprise. For this aspect company's strategic and operational thinking is to be properly planned. Tata Motors and Mahindra and Mahindra are the two major automobile industries which contribute more to the development of our economy. Hence, this research study was undertaken on " Financial Performance of Select Automobile Companies with Reference to Tata Motors and Mahindra and Mahindra". The suggestions given in the research study will help them to improve their financial performance and efficiency.

While analyzing the overall financial performance of these two automobile industries, Tata Motors and Mahindra and Mahindra, it was found that the financial performance of Mahindra and Mahindra is in a better position.

Efficient companies with great financial performance will contribute to the development and strength of an industry. Highly performing industries will contribute significantly to the economic development of the Nation.

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<b>Tata Motors</b>					
<b>Consolidated Balance Sheet</b>	<b>----- in</b>				

**ANNEXUR**

**E**

	<b>Rs.Cr</b>				
	<b>Mar '18</b>	<b>Mar '17</b>	<b>Mar '16</b>	<b>Mar '15</b>	<b>Mar '14</b>
<b>Sources Of Funds</b>					
Total Share Capital	679.22	679.22	679.18	643.78	643.78
Equity Share Capital	679.22	679.22	679.18	643.78	643.78
Reserves	94748.69	57382.67	78273.23	55595.27	64936.8
<b>Networth</b>	<b>95427.91</b>	<b>58061.89</b>	<b>78952.41</b>	<b>56239.05</b>	<b>65580.58</b>
Secured Loans	13031.09	12632.54	11377.11	14728.81	14608.75
Unsecured Loans	64963.26	61856.58	50584.06	54482.67	40345.72
<b>Total Debt</b>	<b>77994.35</b>	<b>74489.12</b>	<b>61961.17</b>	<b>69211.48</b>	<b>54954.47</b>
Minority Interest	525.06	453.17	432.84	433.34	420.65
<b>Total Liabilities</b>	<b>173947.32</b>	<b>133004.18</b>	<b>141346.42</b>	<b>125883.87</b>	<b>120955.7</b>
<b>Application Of Funds</b>					
Gross Block	176022.48	139200.7	145722.77	144447	123773.39
Less: Revaluation Reserves	0	0	0	22.87	22.87
Less: Accum. Depreciation	54608.62	43256.62	38491.01	55967.51	54681.72
<b>Net Block</b>	<b>121413.86</b>	<b>95944.08</b>	<b>107231.76</b>	<b>88456.62</b>	<b>69068.8</b>
Capital Work in Progress	40033.5	33698.84	25918.94	28640.09	33262.56
<b>Investments</b>	<b>20812.75</b>	<b>20337.92</b>	<b>23767.02</b>	<b>15336.74</b>	<b>10686.67</b>
Inventories	42137.63	35085.31	32655.73	29272.34	27270.89
Sundry Debtors	28294.95	14075.55	13570.91	12579.2	10574.23
Cash and Bank Balance	34613.91	36077.88	30460.4	32115.76	29711.79
Total Current Assets	105046.49	85238.74	76687.04	73967.3	67556.91
Loans and Advances	44043.91	38534.78	33536.39	32234.37	39400.51
Total CA, Loans & Advances	149090.4	123773.52	110223.43	106201.67	106957.42
Current Liabilities	138501.25	125937.96	112059.21	91580.98	78858.78
Provisions	18901.94	14812.22	13735.52	21170.27	20160.97
Total CL & Provisions	157403.19	140750.18	125794.73	112751.25	99019.75
<b>Net Current Assets</b>	<b>-8312.79</b>	<b>-16976.66</b>	<b>-15571.3</b>	<b>-6549.58</b>	<b>7937.67</b>
<b>Total Assets</b>	<b>173947.32</b>	<b>133004.18</b>	<b>141346.42</b>	<b>125883.87</b>	<b>120955.7</b>
Contingent Liabilities	13456.66	44108.39	43504.88	22345.82	28191.1
Book Value (Rs)	281.01	170.98	232.51	174.73	203.75

<b>Tata Motors</b>					
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<b>Consolidated Balance Sheet</b>					
	<b>Mar '13</b>	<b>Mar '12</b>	<b>Mar '11</b>	<b>Mar '10</b>	<b>Mar '09</b>
<b>Sources Of Funds</b>					
Total Share Capital	638.07	634.75	637.71	570.6	514.05
Equity Share Capital	638.07	634.75	637.71	570.6	514.05
Reserves	36,959.63	32,422.28	18,389.13	7,641.30	4,679.36
<b>Networth</b>	<b>37,597.70</b>	<b>33,057.03</b>	<b>19,026.84</b>	<b>8,211.90</b>	<b>5,193.41</b>
Secured Loans	16,981.04	15,774.04	18,745.66	21,290.03	13,705.50
Unsecured Loans	26,741.24	22,930.03	11,616.49	13,902.33	21,268.35
<b>Total Debt</b>	<b>43,722.28</b>	<b>38,704.07</b>	<b>30,362.15</b>	<b>35,192.36</b>	<b>34,973.85</b>
Minority Interest	370.48	307.13	246.6	213.51	403.03
<b>Total Liabilities</b>	<b>81,690.46</b>	<b>72,068.23</b>	<b>49,635.59</b>	<b>43,617.77</b>	<b>40,570.29</b>
<b>Application Of Funds</b>					
Gross Block	98,046.05	87,926.36	71,757.47	68,274.70	62,188.03
Less: Revaluation Reserves	39.6	92.9	144.63	185.73	110.75
Less: Accum. Depreciation	42,877.77	43,565.95	36,408.42	34,413.52	33,269.05
<b>Net Block</b>	<b>55,128.68</b>	<b>44,267.51</b>	<b>35,204.42</b>	<b>33,675.45</b>	<b>28,808.23</b>
Capital Work in Progress	18,417.70	15,945.83	11,456.79	8,068.02	10,533.00
<b>Investments</b>	<b>9,057.72</b>	<b>8,917.71</b>	<b>2,544.26</b>	<b>2,219.12</b>	<b>1,257.40</b>
Inventories	20,969.01	18,216.02	14,070.51	11,312.03	10,154.68
Sundry Debtors	10,942.66	8,236.84	6,525.65	7,191.18	4,800.13
Cash and Bank Balance	21,112.67	18,238.13	11,409.60	6,059.95	2,143.12
Total Current Assets	53,024.34	44,690.99	32,005.76	24,563.16	17,097.93
Loans and Advances	34,358.41	31,467.70	19,658.32	15,709.08	14,256.51
Fixed Deposits	0	0	0	2,683.37	1,978.22
Total CA, Loans & Advances	87,382.75	76,158.69	51,664.08	42,955.61	33,332.66
Current Liabilities	72,224.65	60,379.75	41,276.83	35,656.93	26,387.88
Provisions	16,071.74	12,841.76	9,957.13	7,643.50	7,059.20
Total CL & Provisions	88,296.39	73,221.51	51,233.96	43,300.43	33,447.08
<b>Net Current Assets</b>	<b>-913.64</b>	<b>2,937.18</b>	<b>430.12</b>	<b>-344.82</b>	<b>-114.42</b>
Miscellaneous Expenses	0	0	0	0	86.08

<b>Total Assets</b>	<b>81,690.46</b>	<b>72,068.23</b>	<b>49,635.59</b>	<b>43,617.7 7</b>	<b>40,570.29</b>
Contingent Liabilities	21,360.25	23,479.60	26,001.29	7,670.17	9,063.99
Book Value (Rs)	117.86	104.16	299.82	143.93	115.45

<b>Mahindra and</b>					
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<b>Mahindra</b>					
<b>Consolidated Balance Sheet</b>	<b>in Rs. Cr.</b>				
	<b>Mar '18</b>	<b>Mar '17</b>	<b>Mar '16</b>	<b>Mar '15</b>	<b>Mar '14</b>
<b>Sources Of Funds</b>					
Total Share Capital	543.13	270.89	270.4	295.7	295.16
Equity Share Capital	543.13	270.89	270.4	295.7	295.16
Reserves	36,232.06	29,467.10	26,222.25	25,547.01	22,998.03
<b>Networth</b>	<b>36,775.19</b>	<b>29,737.99</b>	<b>26,492.65</b>	<b>25,842.71</b>	<b>23,293.19</b>
Secured Loans	30,802.63	25,998.29	20,580.71	17,592.77	19,326.24
Unsecured Loans	14,332.09	14,247.87	10,095.19	11,911.70	8,946.16
<b>Total Debt</b>	<b>45,134.72</b>	<b>40,246.16</b>	<b>30,675.90</b>	<b>29,504.47</b>	<b>28,272.40</b>
Minority Interest	8,250.47	6,356.90	5,920.20	5,892.23	5,733.10
<b>Total Liabilities</b>	<b>90,160.38</b>	<b>76,341.05</b>	<b>63,088.75</b>	<b>61,239.41</b>	<b>57,298.69</b>
<b>Application Of Funds</b>					
Gross Block	26,181.90	20,989.01	43,376.32	40,393.35	38,010.48
Less: Revaluation Reserves	0	0	0	13.67	13.67
Less: Accum. Depreciation	0	0	22,791.61	21,346.61	19,629.52
<b>Net Block</b>	<b>26,181.90</b>	<b>20,989.01</b>	<b>20,584.71</b>	<b>19,033.07</b>	<b>18,367.29</b>
Capital Work in Progress	4,269.47	4,278.94	2,371.35	3,032.14	2,191.05
<b>Investments</b>	<b>16,017.61</b>	<b>14,662.44</b>	<b>11,602.58</b>	<b>10,027.14</b>	<b>8,082.35</b>
Inventories	9,335.57	8,886.01	9,116.12	8,453.39	8,353.54
Sundry Debtors	8,489.82	7,199.26	5,817.60	5,476.16	5,725.42
Cash and Bank Balance	6,547.60	4,654.03	4,527.55	4,911.83	6,522.79
Total Current Assets	24,372.99	20,739.30	19,461.27	18,841.38	20,601.75
Loans and Advances	66,368.94	54,072.46	46,612.17	43,896.58	39,014.15
Total CA, Loans & Advances	90,741.93	74,811.76	66,073.44	62,737.96	59,615.90
Current Liabilities	41,869.59	33,678.15	33,063.70	27,937.24	25,869.24
Provisions	5,180.94	4,722.95	4,479.63	5,653.66	5,088.66

Total CL & Provisions	47,050.5 3	38,401.10	37,543.33	33,590.90	30,957.90
<b>Net Current Assets</b>	<b>43,691.4 0</b>	<b>36,410.66</b>	<b>28,530.11</b>	<b>29,147.06</b>	<b>28,658.00</b>
<b>Total Assets</b>	<b>90,160.3 8</b>	<b>76,341.05</b>	<b>63,088.75</b>	<b>61,239.41</b>	<b>57,298.69</b>
Contingent Liabilities	7,284.08	6,303.69	6,470.35	7,303.14	6,334.18
Book Value (Rs)	322.72	522.4	465.39	416.08	378.2

<b>Mahindra and Mahindra</b>					
<b>Consolidated Balance Sheet</b>	<b>- in Rs. Cr.</b>				
	<b>Mar '13</b>	<b>Mar '12</b>	<b>Mar '11</b>	<b>Mar '10</b>	<b>Mar '09</b>

<b>Sources Of Funds</b>					
Total Share Capital	295.16	294.52	293.62	282.95	272.62
Equity Share Capital	295.16	294.52	293.62	282.95	272.62
Share Application Money	0	0	0.02	0	0
Employee Stock Option	0	0	0	8.01	6.55
Reserves	19,651.55	16,394.94	13,979.26	8,912.18	6,704.69
<b>Networth</b>	<b>19,946.71</b>	<b>16,689.46</b>	<b>14,272.90</b>	<b>9,203.14</b>	<b>6,983.86</b>
Secured Loans	16,848.99	13,687.30	10,406.43	9,446.27	7,723.89
Unsecured Loans	6,379.75	5,247.42	3,707.88	4,241.88	4,465.60
<b>Total Debt</b>	<b>23,228.74</b>	<b>18,934.72</b>	<b>14,114.31</b>	<b>13,688.15</b>	<b>12,189.49</b>
Minority Interest	5,296.97	4,525.16	4,336.64	2,462.35	3,057.26
Group Share in Joint Venture	0	0	0	2,188.86	39.03
<b>Total Liabilities</b>	<b>48,472.42</b>	<b>40,149.34</b>	<b>32,723.85</b>	<b>27,542.50</b>	<b>22,269.64</b>
<b>Application Of Funds</b>					
Gross Block	36,663.93	33,765.58	29,190.35	13,692.14	13,029.73
Less: Revaluation Reserves	13.99	14.35	11.18	11.67	12.09
Less: Accum. Depreciation	18,356.59	16,567.31	14,482.50	5,651.36	5,341.02
<b>Net Block</b>	<b>18,293.35</b>	<b>17,183.92</b>	<b>14,696.67</b>	<b>8,029.11</b>	<b>7,676.62</b>
Capital Work in Progress	1,631.20	1,488.29	1,408.28	1,967.69	1,440.48
<b>Investments</b>	<b>6,440.41</b>	<b>5,347.21</b>	<b>4,713.97</b>	<b>3,475.37</b>	<b>3,380.82</b>
Inventories	8,416.90	7,157.67	5,449.15	3,541.72	3,266.87
Sundry Debtors	5,176.97	5,345.06	4,210.14	2,877.36	3,485.05
Cash and Bank Balance	4,760.20	3,484.72	2,220.57	1,010.00	1,561.31
Total Current Assets	18,354.07	15,987.45	11,879.86	7,429.08	8,313.23
Loans and Advances	31,736.77	23,764.55	17,957.92	11,154.90	9,624.63
Fixed Deposits	0	0	0	1,623.96	1,400.38
Total CA, Loans & Advances	50,090.84	39,752.00	29,837.78	20,207.94	19,338.24
Current Liabilities	23,700.05	19,446.59	14,635.28	6,933.63	7,992.80
Provisions	4,283.33	4,175.49	3,297.57	1,835.26	1,614.91
Total CL & Provisions	27,983.38	23,622.08	17,932.85	8,768.89	9,607.71
<b>Net Current Assets</b>	<b>22,107.46</b>	<b>16,129.9</b>	<b>11,904.9</b>	<b>11,439.05</b>	<b>9,730.53</b>

		<b>2</b>	<b>3</b>		
Group Share in Joint Venture	0	0	0	2,626.70	24.33
Miscellaneous Expenses	0	0	0	4.58	16.86
<b>Total Assets</b>	<b>48,472.42</b>	<b>40,149.34</b>	<b>32,723.85</b>	<b>27,542.50</b>	<b>22,269.64</b>
Contingent Liabilities	5,319.43	5,966.26	4,987.04	3,778.61	2,343.04
Book Value (Rs)	324.88	271.83	232.48	162.48	255.94

<b>Consolidated Profit &amp; Loss account of Tata Motors</b>	----- in Rs. Cr. ----- -----				
	<b>Mar '18</b>	<b>Mar '17</b>	<b>Mar '16</b>	<b>Mar '15</b>	<b>Mar '14</b>

<b>Income</b>					
Sales Turnover	295,409.34	274,492.12	277,660.59	266,345.25	236,626.43
Excise Duty	0	4,799.61	0	3,548.92	3,792.77
Net Sales	295,409.34	269,692.51	277,660.59	262,796.33	232,833.66
Other Income	6,773.91	-4,700.04	2,796.36	714.03	-156.79
Stock Adjustments	2,046.58	7,399.92	2,750.99	3,330.35	2,840.58
<b>Total Income</b>	<b>304,229.83</b>	<b>272,392.39</b>	<b>283,207.94</b>	<b>266,840.71</b>	<b>235,517.45</b>
<b>Expenditure</b>					
Raw Materials	190,107.14	175,713.19	168,230.20	165,033.30	148,109.33
Power & Fuel Cost	1,308.08	1,159.82	1,143.63	1,121.75	1,128.69
Employee Cost	30,300.09	28,332.89	28,880.89	25,548.96	21,556.42
Other Manufacturing Expenses	3,531.87	3,413.57	3,468.77	2,875.17	2,565.21
Selling and Admin Expenses	8,968.59	0	0	0	0
Miscellaneous Expenses	27,923.61	38,884.27	37,382.47	32,308.85	27,476.89
Total Expenses	262,139.38	247,503.74	239,105.96	226,888.03	200,836.54
<b>Operating Profit</b>	<b>35,316.54</b>	<b>29,588.69</b>	<b>41,305.62</b>	<b>39,238.65</b>	<b>34,837.70</b>
PBDIT	42,090.45	24,888.65	44,101.98	39,952.68	34,680.91
Interest	4,681.79	4,238.01	4,889.08	4,861.49	4,733.78
PBDT	37,408.66	20,650.64	39,212.90	35,091.19	29,947.13
Depreciation	21,553.59	17,904.99	16,710.78	13,388.63	11,078.16
Profit Before Tax	15,855.07	2,745.65	22,502.12	21,702.56	18,868.97
PBT (Post Extra-ord Items)	15,855.07	2,745.65	22,502.12	21,702.56	18,868.97
Tax	4,341.93	3,251.23	3,025.05	7,642.91	4,764.79
<b>Reported Net Profit</b>	<b>6,813.10</b>	<b>6,063.56</b>	<b>11,100.72</b>	<b>14,059.65</b>	<b>14,104.18</b>
Minority Interest	0	102.2	0	86.78	59.45
Share Of P/L Of Associates	-2,278.26	-1,493.00	-577.47	-13.42	53.71
Net P/L After Minority Interest & Share Of Associates	7,906.38	6,339.80	18,143.53	14,171.00	14,976.40
Total Value Addition	72,032.24	71,790.55	70,875.76	61,854.73	52,727.21
Preference Dividend	0	0	0	2.27	0
Equity Dividend	0	73	0	0	648.56

Corporate Dividend Tax	0	0	0	60.21	117.21
<b>Per share data (annualised)</b>					
Shares in issue (lakhs)	33,958.51	33,958.51	33,956.80	32,186.80	32,186.80
<b>Earning Per Share (Rs)</b>	<b>20.06</b>	<b>17.86</b>	<b>32.69</b>	<b>43.67</b>	<b>43.82</b>
Book Value (Rs)	281.01	170.98	232.51	174.73	203.75



<b>TATA MOTORS- PROFIT &amp; LOSS A/C</b>	<b>-in Rs. Cr.</b>				
	<b>Mar '13</b>	<b>Mar '12</b>	<b>Mar '11</b>	<b>Mar '10</b>	<b>Mar '09</b>
<b>Income</b>					
Sales Turnover	193,58 3.95	170,677.58	126,414.24	94,835.38	74,761.84
Excise Duty	4,766. 32	5,023.09	4,286.32	3,135.12	3,153.68
Net Sales	188,81 7.63	165,654.49	122,127.92	91,700.26	71,608.16
Other Income	208.82	-169.77	660.47	3,555.32	-1,139.75
Stock Adjustments	3,031. 43	2,535.72	1,836.19	817.1	-602.92
<b>Total Income</b>	<b>192,05 7.88</b>	<b>168,020.44</b>	<b>124,624.58</b>	<b>96,072.68</b>	<b>69,865.49</b>
<b>Expenditure</b>					
Raw Materials	124,74 6.40	113,220.54	82,033.81	63,703.05	48,218.24
Power & Fuel Cost	1,069. 06	1,017.19	851.6	689.45	686.3
Employee Cost	16,584 .05	12,298.45	9,342.67	8,751.77	7,297.22
Other Manufacturing Expenses	2,021. 59	1,389.23	997.55	1,157.12	827.97
Selling and Admin Expenses	0	0	0	8,954.69	6,134.19
Miscellaneous Expenses	22,880 .66	17,953.56	13,921.00	7,037.94	8,920.90
Preoperative Exp Capitalised	0	0	0	-4,592.50	-4,669.77
Total Expenses	167,30 1.76	145,878.97	107,146.63	85,701.52	67,415.05
<b>Operating Profit</b>	<b>24,547 .30</b>	<b>22,311.24</b>	<b>16,817.48</b>	<b>6,815.84</b>	<b>3,590.19</b>
PBDIT	24,756 .12	22,141.47	17,477.95	10,371.16	2,450.44
Interest	3,553. 34	2,982.22	2,385.27	2,916.20	2,072.02
PBDT	21,202 .78	19,159.25	15,092.68	7,454.96	378.42
Depreciation	7,569. 30	5,625.38	4,655.51	3,887.13	2,506.77
Other Written Off	0	0	0	0	0.9

Profit Before Tax	13,633.48	13,533.87	10,437.17	3,567.83	-2,129.25
PBT (Post Extra-ord Items)	13,633.48	13,533.87	10,437.17	3,567.83	-2,129.25
Tax	3,770.99	-40.04	1,216.38	1,005.75	335.75
<b>Reported Net Profit</b>	<b>9,862.49</b>	<b>13,573.91</b>	<b>9,220.79</b>	<b>2,516.89</b>	<b>-2,465.00</b>
Minority Interest	83.67	82.33	48.52	30.33	-11.48
Share Of P/L Of Associates	-113.79	-24.92	-101.35	-84.5	51.73
Net P/L After Minority Interest & Share Of Associates	10,495.32	14,348.04	9,042.61	2,915.13	-2,165.96
Total Value Addition	42,555.36	32,658.43	25,112.82	21,998.47	19,196.81
Equity Dividend	645.2	1,280.70	1,274.23	859.05	311.61
Corporate Dividend Tax	110.94	207.92	207.07	142.8	52.97
<b>Per share data (annualised)</b>					
Shares in issue (lakhs)	31,901.16	31,735.47	6,346.14	5,705.58	4,498.33
<b>Earning Per Share (Rs)</b>	<b>30.92</b>	<b>42.77</b>	<b>145.3</b>	<b>44.11</b>	<b>-54.8</b>
Book Value (Rs)	117.86	104.16	299.82	143.93	115.45



<b>Consolidated Profit &amp; Loss account of Mahindra and Mahindra</b>	----- --- in Rs. Cr. ----- ---				
	<b>Mar '18</b>	<b>Mar '17</b>	<b>Mar '16</b>	<b>Mar '15</b>	<b>Mar '14</b>
<b>Income</b>					
Sales Turnover	93,264.77	88,983.03	80,461.87	75,489.82	78,230.63
Excise Duty	1,170.82	5,209.98	0	3,541.23	4,229.70
Net Sales	92,093.95	83,773.05	80,461.87	71,948.59	74,000.93
Other Income	3,358.38	1,343.30	498.13	799.93	822.94
Stock Adjustments	-83.33	13.83	458.51	-274.13	238.97
<b>Total Income</b>	<b>95,369.00</b>	<b>85,130.18</b>	<b>81,418.51</b>	<b>72,474.39</b>	<b>75,062.84</b>
<b>Expenditure</b>					
Raw Materials	53,765.68	50,944.00	45,904.25	42,982.35	45,593.78
Power & Fuel Cost	733.9	657.06	639.97	786.96	923.38
Employee Cost	10,004.62	8,910.63	7,689.40	7,146.55	6,885.94
Selling and Admin Expenses	905.06	723.4	871.93	0	0
Miscellaneous Expenses	13,375.26	11,816.96	11,111.94	11,965.31	10,716.64
Total Expenses	78,784.52	73,052.05	66,217.49	62,881.17	64,119.74
<b>Operating Profit</b>	<b>13,226.10</b>	<b>10,734.83</b>	<b>14,702.89</b>	<b>8,793.29</b>	<b>10,120.16</b>
PBDIT	16,584.48	12,078.13	15,201.02	9,593.22	10,943.10
Interest	3,987.09	3,648.46	3,367.59	3,156.69	2,953.93
PBDT	12,597.39	8,429.67	11,833.43	6,436.53	7,989.17
Depreciation	3,279.90	2,812.72	2,441.65	2,123.83	2,169.57
Profit Before Tax	9,317.49	5,616.95	9,391.78	4,312.70	5,819.60
PBT (Post Extra-ord Items)	9,317.49	5,616.95	9,391.78	4,312.70	5,819.60
Tax	2,367.73	2,299.73	2,117.53	1,720.02	1,496.22
<b>Reported Net Profit</b>	<b>6,403.13</b>	<b>2,798.64</b>	<b>2,708.47</b>	<b>2,592.68</b>	<b>4,323.38</b>
Minority Interest	0	0	0	243.91	486.87
Share Of P/L Of Associates	-1,107.26	-899.4	-846.03	-788.7	-830.42
Net P/L After Minority Interest & Share Of Associates	5,329.67	3,603.42	8,143.20	2,862.57	4,349.08
Total Value Addition	25,018.84	22,108.05	20,313.24	19,898.82	18,525.96
Equity Dividend	847.97	773.67	774.64	745.31	862.25
Corporate Dividend Tax	0	0	0	101.58	104.04
<b>Per share data (annualised)</b>					
Shares in issue (lakhs)	11,395.22	5,692.57	5,692.57	6,210.92	6,158.92
<b>Earning Per Share (Rs)</b>	<b>56.19</b>	<b>49.16</b>	<b>47.58</b>	<b>41.74</b>	<b>70.2</b>
Book Value (Rs)	322.72	522.4	465.39	416.08	378.2



<b>Mahindra and Mahindra –profit &amp; loss account</b>	<b>Mar '13</b>	<b>Mar '12</b>	<b>Mar '11</b>	<b>Mar '10</b>	<b>Mar09</b>
<b>Income</b>					
Sales Turnover	74,014.05	63,011.79	39,547.56	33,184.89	27,116.49
Excise Duty	5,278.39	3,612.85	2,683.78	2,102.13	2,072.18
Net Sales	68,735.66	59,398.94	36,863.78	31,082.76	25,044.31
Other Income	841.44	406.77	520.87	969.8	1,856.65
Stock Adjustments	220.36	1,169.74	452.77	-26.69	-179.07
<b>Total Income</b>	<b>69,797.46</b>	<b>60,975.45</b>	<b>37,837.42</b>	<b>32,025.87</b>	<b>26,721.89</b>
<b>Expenditure</b>					
Raw Materials	42,531.00	37,079.92	20,796.65	15,461.94	13,108.43
Power & Fuel Cost	936.88	865.82	601.8	510.77	471.4
Employee Cost	6,819.07	6,590.87	4,222.27	4,574.21	4,268.59
Other Manufacturing Expenses	0	0	0	1,394.69	1,176.06
Selling and Admin Expenses	0	0	0	3,405.55	3,027.98
Miscellaneous Expenses	9,553.28	8,654.08	5,594.00	785.64	958.74
Preoperative Exp Capitalised	0	0	0	-132.59	-107.8
Total Expenses	59,840.23	53,190.69	31,214.72	26,000.21	22,903.40
<b>Operating Profit</b>	<b>9,115.79</b>	<b>7,377.99</b>	<b>6,101.83</b>	<b>5,055.86</b>	<b>1,961.84</b>
PBDIT	9,957.23	7,784.76	6,622.70	6,025.66	3,818.49
Interest	2,297.00	1,799.57	1,135.43	1,120.50	857.76
PBDT	7,660.23	5,985.19	5,487.27	4,905.16	2,960.73
Depreciation	2,079.86	1,801.67	972.4	873.52	749.33
Other Written Off	0	0	0	1.68	1.19
Profit Before Tax	5,580.37	4,183.52	4,514.87	4,029.96	2,210.21
Extra-ordinary items	0	0	-15.71	-4.27	-6.36
PBT (Post Extra-ord Items)	5,580.37	4,183.52	4,499.16	4,025.69	2,203.85
Tax	1,934.63	1,407.56	1,317.08	1,154.20	542.17
<b>Reported Net Profit</b>	<b>3,645.74</b>	<b>2,775.96</b>	<b>3,182.08</b>	<b>2,871.49</b>	<b>1,705.59</b>
Minority Interest	29.95	-66.74	95.03	412.56	311.45
Share Of P/L Of Associates	-483.41	-283.96	7.32	-19.63	-11.27
Net P/L After Minority Interest & Share Of Associates	3,646.70	3,065.90	2,891.41	2,232.60	1,488.16
Total Value Addition	17,309.23	16,110.77	10,418.07	10,538.27	9,794.97
Equity Dividend	798.17	767.48	706.08	549.52	302.34
Corporate Dividend Tax	92.98	127.81	118.68	89.61	62.09

<b>Per share data (annualised)</b>					
Shares in issue (lakhs)	6,139.81	6,139.75	6,139.40	5,659.08	2,726.16
<b>Earning Per Share (Rs)</b>	<b>59.38</b>	<b>45.21</b>	<b>51.83</b>	<b>50.74</b>	<b>62.56</b>
Book Value (Rs)	324.88	271.83	232.48	162.48	255.94















