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Faculty of Economics and Management

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Bachelor Thesis

Assessment of the Financial Position and Performance of a Chosen Indian Company

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BACHELOR THESIS TOPIC

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Methodology:	Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen company. Vertical and horizontal analysis and ratio analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis.
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Declaration

I declare that I have worked on my bachelor thesis titled "Assessment of the Financial Position and Performance of a Chosen Indian Company" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 28/11/2020

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Assessment of the Financial Position and Performance of a Chosen Indian Company

Abstract

This bachelor thesis deals with the assessment of financial position and performance of a chosen Indian company, Tata Motors. The theoretical background monitors the presentation of financial statements in India, the purpose of financial analysis and the automobile industry specifics. The practical part analyses the financial position represented by the Balance sheet and the financial performance represented by the Statement of profit or loss of the company by using vertical and horizontal analysis of these statements covering financial years 2017-2019 with the focus on the representation and changes of the reported assets, liabilities, expenses, revenues and profit for a chosen period in order to identify the potential financial problems and the most significant factors influencing the profit.

Keywords: Financial statements, financial analysis, financial position, balance sheet, assets, liabilities, equity, financial performance, Income statement, expenses, revenues, profit

Zhodnocení finanční pozice a výkonnosti vybrané společnosti v Indii

Abstrakt

Tato bakalářská práce se zabývá zhodnocením finanční pozice a výkonnosti vybrané indické společnosti Tata Motors. Teoretická část práce se zaměřuje na prezentaci účetních výkazů v Indii, a zabývá charakteristikou vybraných ukazatelů finanční analýzy a charakteristikou odvětví automobilového průmyslu v Indii. Praktická část práce analyzuje finanční pozici použitím údajů z rozvahy a finanční výkonnost použitím údajů výkazu zisku a ztráty dané společnosti pomocí vertikální a horizontální analýzy těchto účetních výkazů za období 2017 – 2019 se zaměřením na složení a vývoj vykazovaných aktiv, závazků, nákladů, výnosů a zisku za sledované období za účelem identifikace finančních problémů a nejvýznamnějších faktorů ovlivňujících zisk.

Klíčová slova: účetní výkazy, finanční analýza, finanční pozice, rozvaha, majetek, závazky, vlastní kapitál, finanční výkonnost, výkaz zisku a ztráty, náklady, výnosy, zisk

Table of content

1. Introduction	10
2. Objectives and Methodology	11
2.1 Objectives.....	11
2.2 Methodology	11
3. Literature Review	12
3.1 Financial Statements in India	12
3.1.1 Statement of financial position – the Balance sheet	15
3.1.2 Statement of financial performance – the Statement of profit or loss	17
3.2 The purpose of Financial analysis and selected ratios	18
3.3 Automobile industry in India	21
4 Practical Part	24
4.1 General information about Tata Motors.....	24
4.2 Analysis of financial position- Balance sheet	25
4.2.1 Vertical analysis of assets	25
4.2.2 Vertical analysis of liabilities and equity.....	28
4.2.3 Horizontal analysis of assets.....	31
4.2.4 Horizontal analysis of liabilities and equity.....	34
4.3 Analysis of financial performance- Statement of profit and loss.....	36
4.3.1 Vertical analysis of parts of the Statement of Profit & Loss over three years.....	36
4.3.2 Horizontal analysis of the Statement of Profit & Loss	40
4.4 Selected ratios of financial analysis	45
4.4.1 Return on equity.....	45
4.4.2 Cash ratio	45
5 Results and Discussion	46
5.1 Assessment of the financial position of the company	46
5.2 Assessment of the financial performance of the company.....	46
5.3 The most significant factors influencing the profit.....	47
5.4 Possible financial problem areas.....	48
6 Conclusion	49
7 References	51
8 Appendix	53

List of pictures

Picture 1 showing cash ratio formula

Picture 2 showing return on equity formula

Picture 3. showing the Standalone balance sheet of Tata Motors as on March 31st, 2019

Picture 4. showing the Standalone Statement of Profit & Loss of Tata Motors as on March 31st, 2019

Picture 5 showing the Consolidated balance sheet of Tata Motors as on March 31st, 2019

Picture 6 showing the Consolidated Statement of Profit & Loss of Tata Motors as on March 31st, 2019

Picture 7 showing Tata motors product in domestic, commercial and defense sector

List of tables

Table 1. classification of expenses under IND AS 1

Table 2. Verticle analysis of assets over three years

Table 3. Vertical analysis of liabilities over three years

Table 4. Change in the amount of inventories over a long period

Table 5. Horizontal ananlysis of equity and liabilties over three years with the year ending March 31, 17 as the base year

Table 6. Vertical analysis of revenues separately

Table 7. Vertical analysis of expenses separately

Table 8. Vertical analysis of exceptional items separately

Table9. Vertical analysis of comprehensive income or loss separately

Table 10. Horizontal analysis of the Statement of Profit & Loss over three years with the year ending on March 31,17 as the base year

Table 11. Change in cost of materials consumed over the period of 9 years

Table 12. Top global exporters in automotive industry

Table 13 showing the calculation of Return om Equity ratio

Table 14 showing the calculation of Cash ratio

List of abbreviations

ICAI- Institute of Chartered Accountants

IND AS- Indian Accounting Standards

IFRS- International Financial Reporting Standards

GAAP- Generally Accepted Accounting Principles

NCERT- National Council of Educational and Training

ASB- Accounting Standards Board

GST- Goods and service tax

R&D- Research and Development

LIBOR- the London inter-bank offered rate

1. Introduction

A wide range of companies engaging in design, development, manufacturing, research and sale of passenger, commercial and military grade vehicles constitutes the world automobile industry making it the largest economic sector in terms of revenue. The birth of the automobile industry is dated back in the 1860s. For many years the US was ruling the market until the Great Depression hit the world in 1929. Before 1929, the world had 32,028,500 vehicles, 90% of which was produced by the US. World War II also had quite an impact on the US production level forcing it to fall to 75%. Over-time, Japan took the first place which was later taken over by China. China led the industry until Coronavirus made an impact on country's production and leading to an immense downfall of the production and shutting down of many manufacturing plants. The country along with other international companies who has multiple production units are already taking serious measures to produce masks which will protect the virus from spreading through respiration so that they can continue the production again. Besides new automotive players like NIO, xpeng, who were born with online-to-offline genes, many traditional automotive brands, including Volkswagen, Nissan, SAIC and BMW, turned to online shopping for cars using tools including virtual reality and live broadcasts to stimulate sales. China's situation in relation to the coronavirus has a significant role in the decline of global demand as China is not only the largest producer but also the largest consumer. Global car sales are expected to fall by about 3.1 million in 2019, a bigger drop than in 2008, slowdown in sales is also contributing to the stagnation of manufacturing of vehicles, according to the Fitch Ratings. Also, in the year 2018, India overthrew Germany to take fourth place in the world automobile production. Some of the leading automobile export countries are mentioned below. The listed 15 countries shipped 84.7% of global cars exports in 2018 by value. Main reasons driving this change would be technological advancement and the world becoming environment friendly. Automobile industry will evolve, and new tech companies will force competition leading to a production of cheap and quality auto parts. By the end of 2025 electric vehicles will constitute 10% of the vehicle sales and hybrid vehicles comprise of 40% of the same. Forced government regulation towards emission will contribute to the expansion of this industry because of the electric market. Also, increased urbanization and modernization in the rising economies like India, China and Turkey will provide better means of infrastructure to accelerate the manufacturing level and drive the market. (WORKMAN, Daniel, Car Exports by Country, Article, April 2020, WORLD ECONOMY FORUM, automobile industry, 2020)

2. Objectives and Methodology

2.1 Objectives

The aim of this bachelor thesis is to assess the financial position and performance of a chosen Indian company by analyzing the company's financial statements with focus on the representation and changes of the reported assets, liabilities, expenses and revenues for a chosen period and to identify the potential financial problems and the most significant factors influencing the profit.

2.2. Methodology

Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen company.

Vertical and horizontal analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. Selected ratios of financial analysis will be calculated. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis.

The analyzed company is Tata Motors, one of the biggest automobile manufacturing companies in India. The Balance sheet of the company will be analyzed for the assessment of the financial position and the Income statement (Statement of profit and loss) for the assessment of the financial performance. The analysis covers the financial years 2017-2019.

The definitions of the vertical and horizontal analysis as well as the formulas of the selected ratios of the financial analysis are included in the literary review of this thesis. The data for analysis is used from the published annual reports of the company and amounts in the tables are presented in crores.

3. Literature Review

The literature review is a theoretical background for the thesis and focuses on the characteristics of the selected financial statements according to the Indian accounting standards. The literature review also deals with selected methods of financial analysis as a base for the practical part of the thesis and outlines the characteristics of the automotive industry in India.

3.1 Financial Statements in India

“Generally Accepted Accounting principles refer to the rules or guidelines adopted for recording and reporting of business transactions in order to bring uniformity in the preparation and presentation of financial statements. These principles are also referred to as concepts and conventions” (NCERT, 2018). In simple words, we can say that in order to maintain uniformity and consistency in accounting records, certain rules or principles have been developed which are generally accepted by the accounting profession. Indian GAAP mainly constitutes of 18 accounting standards (AS) issued by the Institute of Chartered Accountants of India (ICAI). To make them easy to understand and follow, the ICAI has also issued guidance notes and 'expert opinions' on specific queries raised by companies and accountants. From these three, however, only the standards are mandatory to be complied with. In addition, the Indian Companies Act 2013 and various other industry-specific statutes prescribe certain minimum disclosures in the financial statements. Indian Accounting Standards (Ind ASs) are Standards prescribed under Section 133 of the Companies Act, 2013.

GAAP permit a variety of alternative treatments for the same item. For example, various methods of calculation of cost of inventory are permissible which may be followed by different enterprises. This may cause problem to the external users of information, which becomes inconsistent and incomparable. So, the Institute of Chartered Accountants of India (ICAI) constituted an Accounting Standards Board (ASB) in April 1977 for developing Accounting Standards. “Accounting standards are written statements of uniform accounting rules and guidelines in practice for preparing the uniform and consistent financial statements. These standards cannot override the provisions of applicable laws, customs, usages and business environment in the country” (NCERT, 2019).

“On exercise of the powers conferred by section 133 read with section 469 of the Companies Act 2013 (18 of 2013) and sub-section 210A of the Companies Act, 1956 (1 of 1956), the Central Government , in consultation with National Advisory Committee on Accounting Standards, hereby makes the following rules which are called the Companies (Indian Accounting Standards) Rules, 2015” (Taxxman, 2019).

The Companies Act, 2013 passed by the Indian Parliament consolidates and amends the law relating to companies. The Indian Accounting Standards (Ind AS), as notified under section 133 of the Companies Act 2013, have been formulated keeping the Indian economic and legal environment in view and with a view to converge with IFRS Standards. The provisions of Companies Act, 1956 is still in force. (Ministry of Corporate Affairs, India). The companies and the accounting auditors are bound to obey Indian Accounting standards (Ind AS) mentioned in Annexure to these rules and regulations while preparing their financial statements.

- i) Any company, its holding, subsidiary, joint venture or associate company must comply with Ind AS for accounting periods beginning from on or after 1st April 2015, with the comparatives for the periods ending on 31st March 2015,
- ii) Any listed, unlisted or a company in the process of being listed on any stock exchange in India and having a net worth of 5 billion Rs or above,
- iii) Companies other than those covered by sub-clause (a) of clause (ii) of sub rule (1) having a net worth of 5 billion Rs or more;
- iv) Holding, subsidiary, joint venture or associate of companies of companies covered by sub-clause (a) of clause (ii) of sub rule (1) and sub-clause (b) of clause (ii) of sub-rule (1) as the case maybe. (Taxxman, 2019)

Main objective of Ind AS is to ensure a business entity’s financial statement contains a quality information that can be easily used and compared by any type of user produced at a cost does not exceeds the benefits. A company shall apply Ind AS in its first and following by every interim financial report.

According to Indian GAAP AS 1 all the included companies are obliged to disclose their accounting policies and (AS 2) show their net profit/loss for the period, prior items and change in accounting. Mandatory components of financial statements are balance sheet, Statement of profit & loss, Cash flow

statement, explanatory notes with significant accounting policies. Along with these components of financial statement, comparative figures for one year are also to be presented.

Some important differences between Indian GAAP and IND AS

- Format of financial statement has been provided in the Schedule IV of companies Act 1956 while there is no prescribed format of the presentation of financial statements,
- Classification of inventories as per schedule IV: raw material, work in progress, finished goods, stock in trade, stores and spares, loose tools and other. On the other hand, IND AS does not require any specific classification,
- AS 3 under Indian GAAP requires cash flow statements to include bank overdraft under financing activities while under IND AS, the same is been included under the item cash & cash equivalent,
- Dividends declared after the balance sheets date but before approval of financial statements will have to be recorded as a liability. Under IND AS, declared dividend to be recognised in the period when it is declared or proposed,
- Lease hold land is recorded as fixed asset according to Indian GAAP while IND AS recognises a lease as operational or financial as per definition and classification criteria,
- Reporting date of a parent company and a subsidiary cannot be more than six months under Indian GAAP while the difference is only three months under IND AS,
- Intangible assets are measured only at cost under Indian GAAP while IND AS allows the intangible assets to be measured at price or revalued amounts,
- Provisions are not recognised depending upon the obligations in GAAP. In IND AS, they are recognised based on the constructive obligations,
- Financial instruments are classified according to their legal form under Indian GAAP and IND AS classifies financial instruments as a liability or equity based in their contractual arrangement and the dividend on these liabilities are recorded as an interest expense in the statement of comprehensive income,
(IOSR Journal of Business and Management (IOSR-JBM) is UGC approved Journal with SI. No. 4481, Journal no. 46879)

Financial statements are a structured representation of the financial position and financial performance of an entity. Indian Accounting Standard (Ind AS) 1 deals with the Presentation of Financial Statements. According to Ind AS 1, a complete set of financial statements comprises:

- (a) a balance sheet as at the end of the period;
- (b) a statement of profit and loss for the period;
- (c) Statement of changes in equity for the period;
- (d) a statement of cash flows for the period;
- (e) notes, comprising significant accounting policies and other explanatory information.

The objective of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions. Financial statements provide information about an entity's:

- (a) assets;
- (b) liabilities;
- (c) equity;
- (d) income and expenses, including gains and losses;
- (e) contributions by and distributions to owners in their capacity as owners; and
- (f) cash flows.

3.1.1 Statement of financial position – the Balance sheet

Indian Accounting Standard (Ind AS) 1 deals with the Presentation of Financial Statements. The Balance sheet presentation is addressed in points 54 - 80A. The balance sheet includes assets, liabilities and equity.

Assets

Companies are required to present current and non-current assets and current and non-current liabilities as separate classifications in their Balance sheet. An asset is a current asset if the company expects to sell or consume the asset in its normal operating cycle or if it holds the asset primarily for the purpose of trading or assets which the company expects to realize within twelve months after the reporting

period. Cash and cash equivalents are also current assets. Receivables are further required to be disaggregated into amounts receivable from trade customers, receivables from related parties, prepayments and other amounts. Inventories should be disaggregated into classifications such as merchandise, production supplies, materials, work in progress and finished good. All the other assets are classified as non-current. Ind AS 1 uses the term 'non-current' to include tangible, intangible and financial assets of a long-term nature.

Liabilities

Companies are required to classify a liability as current or non-current. Current liabilities are those that a company expects to settle the liability in its normal operating cycle or holds the liability primarily for the purpose of trading or the liability is due to be settled within twelve months after the reporting period. All the other liabilities should be presented as non-current. Some current liabilities, such as trade payables and some accruals for employee and other operating costs, are part of the working capital used in the entity's normal operating cycle. These liabilities are classified as current liabilities even if they are due to be settled more than twelve months after the reporting period. Provisions should be disaggregated into provisions for employee benefits and other items.

Equity

Equity capital and reserves should be disaggregated into various classes, such as paid-in capital, share premium and reserves. Ind AS 1 requires the presentation of the following (either in the balance sheet or the statement of changes in equity, or in the notes):

- (a) for each class of share capital: the number of shares authorised; the number of shares issued and fully paid, and issued but not fully paid; par value per share, or that the shares have no par value; a reconciliation of the number of shares outstanding at the beginning and at the end of the period; the rights, preferences and restrictions attaching to that class including restrictions on the distribution of dividends and the repayment of capital; shares in the entity held by the entity or by its subsidiaries or associates; and shares reserved for issue under options and contracts for the sale of shares, including terms and amounts; and
- (b) a description of the nature and purpose of each reserve within equity.

Mandatory items of the Balance sheet

The balance sheet should include the line of items that present the following amounts (Ind AS 1):

- (a) property, plant and equipment;
- (b) investment property;
- (c) intangible assets;
- (d) financial assets (excluding amounts shown under (e), (h) and (i));
- (e) investments accounted for using the equity method;
- (f) biological assets within the scope of Ind AS 41 Agriculture;
- (g) inventories;
- (h) trade and other receivables;
- (i) cash and cash equivalents;
- (j) the total of assets classified as held for sale and assets included in disposal groups classified as held for sale in accordance with Ind AS 105, Non-current Assets Held for Sale and Discontinued Operations;
- (k) trade and other payables;
- (l) provisions;
- (m) financial liabilities (excluding amounts shown under (k) and (l));
- (n) liabilities and assets for current tax, as defined in Ind AS 12, Income Taxes;
- (o) deferred tax liabilities and deferred tax assets, as defined in Ind AS 12;
- (p) liabilities included in disposal groups classified as held for sale in accordance with Ind AS 105;
- (q) non-controlling interests, presented within equity; and
- (r) issued capital and reserves attributable to owners of the parent.

(KAUR, Parmjot, Comparative Analysis of Indian GAAP, IFRS and IND, Journal of Business and Management (IQSR-JBM), 55-68 pages, Journal no. 46879)

3.1.2 Statement of financial performance – the Statement of profit or loss

Companies are required to expenses recognized in profit or loss using a classification based on the nature of expense method. an entity aggregates expenses within profit or loss according to their nature

(for example, depreciation, purchases of materials, transport costs, employee benefits and advertising costs), and does not reallocate them among functions within the entity. An example of a classification using the nature of expense method according to Ind AS 1 is as follows:

Table 1. classification of expenses by nature under IND AS 1

Revenue	
Other income	
Changes in inventories of finished goods and work in progress	X
Raw materials and consumables used	X
Employee benefits expense	X
Depreciation and amortization expense	X
Other expenses	X
Total expenses	X
Profit before tax	

Source: Indian Accounting Standards 2019 edition- Taxxman

Companies should not present any items of income or expense as extraordinary items, neither in the statement of profit and loss nor in the notes.

3.2 The purpose of Financial analysis and selected ratios

The process of assessing a business entity, project or any other type of firm to determine their performance on various criteria is called financial analysis. The results from a financial analysis are used to judge whether a firm or a company is stable, solvent, liquid or profitable enough to initiate an investment in the company. The information provided in balance sheet, statement of profit & loss, cash flow statement and notes to accounting are used to find various ratios which reflect the performance of the company in various criteria. Horizontal and vertical analysis are also used to do a comparison

between the yearly performance and to calculate the significance of different items in a financial statement in terms of percentage. Financial analysis has multiple purposes:

1. Checking the profitability: the most important objective of any business firm is to survive and earn a satisfactory profit not only to continue its operations but also to expand itself in terms of size and production. A financial analysis tells exactly if a firm is running on profit or loss which helps the investors to know if they will get any interest or dividend.
2. Growth possibilities: financial reports of one firm can be compared with the financial report of another firm to do analysis and comparison.
3. Performance over time: information provided can be compared with the information provided in the financial reports of previous years to tell how the company or a firm has been performing over past years.
4. Financial strength: analysis of the information given in annual reports provide us the information whether the funds on which the firm is running its operations are generated internally or not.
5. Liquidity: calculating liquidity ratios generates enough information about the solvency of the firm meaning if the firm has sufficient sources to pay back its short and long-term debt.

Various units/entities can make use of the information such as investors, management, trade unions, borrowers, tax committees, employees, government and stock exchange for the purpose investing, checking the financial performance/position, negotiating the wages by knowing the financial position, knowing the short and long-term solvency and so on. Information provided in annual report of a firm is not ready to use because not everyone is able to interpret the information provided. So, some techniques are used to interpret the information and data provided. Various ratios are also being put into use to such as liquidity ratio, profitability ratio and leverage ratio. These tools of financial analysis tell the users about the significance of the characteristics they are interested in like simplifying accounting figures, measuring aspects like solvency/liquidity, operational efficiency etc.

RETURN ON EQUITY

It calculates the efficiency of the company in numeric terms. It tells you how well the managers of the company are using the shareholder's capital to stimulate or generate profit. An increasing ROE indicates

that the profit is increasing over the years. It can also be called return on net assets because net income is calculated as shareholder's equity is calculated as assets minus company's debts.

Picture 1 showing calculation of return on equity ratio

$$\text{Return on Equity (ROE) Formula} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

Source: *The Art of Company Valuation and Financial Statement Analysis*, ISBN-10: 1118843096, ISBN-13: 978-1118843093, by- Nicolas Schmidlin

It is calculated by dividing net income by shareholder's equity. Net income can be calculated by subtracting total expenses from total revenues.

CASH RATIO FORMULA

Cash Ratio is a type of solvency ratio that measures the amount of cash and short term cash equivalents, such as marketable securities, a company has to cover it's current liabilities. The cash ratio is an efficient and simple way to find out if a company could have a significant short-term liquidity difficulty, if the cash ratio is less than 1 then it means that the company does not possess the ability to pay-off it's short term liabilities which means that it will not have enough cash.

Pictuer 2 showing the calculation of Cash ratio

$$\text{Cash Ratio Formula} = \frac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$$

- Source: *The Art of Company Valuation and Financial Statement Analysis*, ISBN-10: 1118843096, ISBN-13: 978-1118843093, by- Nicolas Schmidlin

3.3 Automobile industry in India

1. Besides these changes the global vehicle market is on the verge of a big transformation. Main reasons driving this change would be technological advancement and the world becoming environment friendly. Automobile industry will evolve, and new tech companies will force competition leading to a production of cheap and quality auto parts. By the end of 2025 electric vehicles will constitute 10% of the vehicle sales and hybrid vehicles comprise of 40% of the same. Forced government regulation towards emission will contribute to the expansion of this industry because of the electric market. Also, increased urbanization and modernization in the rising economies like India, China and Turkey will provide better means of infrastructure to accelerate the manufacturing level and drive the market. (NCERT, National Council of Education Research and Training, Accountancy-Company Accounts and Analysis of Financial statements, Revised edition 2019)

Automotive industry in India

The automobile sector in India is ranks fourth globally, along with the country itself being the seventh largest manufacturer of the 'commercial vehicles' back in the year 2018. According the growth rates including component manufacturing India's automotive industry is expected to reach Rs 16.16- 18.18 trillion (US\$ 251.4- 22.8 billion) by 2026. The industry majorly is dominated by two-wheelers which constituted about 81% of the domestic sales in FY 19 on account of the growing middle class and young population. Overall, the domestic sales increased by 6.71% between FY 13-19 with 26.27 million vehicles getting sold in FY19. Domestic automobile production increased at 6.96 per cent CAGR between FY13-19 with 30.92 million vehicles manufactured in the country in FY19. In FY 19, commercial vehicles recorded the fastest pace of growth in domestic sector at 17.55%. However, the passenger unit in crossed 3.37 million units in FY 19 and is expected to increase to 10 million units by FY 20. Automobile exports hyped by 14.50% year-on-year in FY 19 and during April-December 2019 overall. Domestic two-wheeler industry is also expected to rise at 8%-10% during FY 19. In addition to that luxury car market which is being anticipated to grow at a rate of 25% until the year 2020. The Government of India expects automobile sector to lure a handsome investment of US\$ 8-10 billion in local and foreign investment by 2023. India will be a part of Global Automotive Triumvirate- the global big three in the approaching 20 years and will encroach the Indian automotive sales by the US market amidst of 2030s.

The government aims to develop India as a world level manufacturing along with the research and development (R&D) centre. Shifting focus towards electric cars will provide various opportunities in this sector. Various testing and research centre have been set up through the India to evolve the infrastructure for the electric vehicle performance and make it the most efficient option for the general public. The government has already introduced in number of Indian cities with electric transport strictly under the FAME (Faster adoption and Manufacturing of hybrid and electric vehicles in India). The government aims to develop India as a global manufacturing centre and has come up with reforms like GST (goods and service tax introduced in India). Under new GST regime, GST on electric vehicles has been reduced to 12 per cent rate to 5 per cent. The country has a significant cost advantage that attracts investment in the sector.

Some of the recent initiatives taken by the Government of India are -

- Under Union Budget 2019-20, government announced to provide additional income tax deduction of Rs 1.5 lakh (US\$ 2,146) on the interest paid on the loans taken to purchase EVs
- The Government of India is planning to set up R&D centres at a total cost of US\$ 388.5 million to enable the industry to be on par with global standards
- In February 2019, the Government of India approved the FAME-II scheme with a fund requirement of Rs 10,000 crore (US\$ 1.39 billion) for FY20-22.

FDI inflows in the automobile sector stood at US\$22.51 billion between April 2000- September 2019. Even the domestic companies are investing more and more to keep up with the demand.

Some of the recent/planned investments and developments in the automobile sector in India are as follows:

- Audi India has launched nine all-new models including Sedans and SUVs along with futuristic e-Tron electric vehicle (EV) in the end of 2019.
- MG Motor India to launch MG ZS EV electric SUV in early 2020 and plans to launch affordable EV in next 3-4 years.
- BYD-Olectra, Tata Motors, Ashok Leyland to supply 5,500 electric buses for different state departments.

- Premium motorbike sales in India recorded seven-fold jump in domestic sales reaching 13,982 units during April-September 2019. The sale of luxury cars stood between 15,000 to 17,000 in first six months of 2019.
- In H1 2019, automobile manufacturers invested US\$ 501 million in India's auto-tech companies start-ups, according to Venture intelligence.
- For self-driving and robotic technology start-ups, Toyota plans to invest US\$100 million.
- 7 Series face lift launched by BMW and the new X7 SUV has been introduced at Rs 98.90 lakh (US\$ 0.14 million).
- Ashok Leyland had a capital expenditure of Rs 1,000 crore (US\$ 155.20 million) for launching 20-25 new models across various commercial vehicle categories in 2018-19.
- Hyundai to invest US\$ 1 billion in India by 2020. SAIC Motor has also announced to invest US\$ 310 million in India.
- Mercedes Benz has increased the manufacturing capacity of its Chakan Plant to 20,000 units per year, highest for any luxury car manufacturing in India.
- As of October 2018, Honda Motors Company is planning to set up its third factory in India for launching hybrid and electric vehicles with the cost of Rs 9,200 crore (US\$ 1.31 billion), its largest investment in India so far.
- In November 2018, Mahindra Electric Mobility opened its electric technology manufacturing hub in Bangalore with an investment of Rs 100 crore (US\$ 14.25 million) which will increase its annual manufacturing capacity to 25,000 units. (Annual report, FY 18-19)

4. Practical Part

The practical part of this bachelor thesis analyses the financial position (represented by the Balance sheet) and financial performance (represented by the Statement of profit or loss) in a chosen Indian company, Tata Motors by using vertical and horizontal analysis of the selected financial statements of the company and calculating selected ratios of financial analysis.

4.1 General information about Tata Motors

History

Tata Motors Group (Tata Motors) is a \$45 billion organization established on 1st September, 1945, Mumbai, India. Part of the Tata Group was founded by Jamsetji ji Tata in the year 1868. It is a leading global automobile manufacturing company and the biggest in India. Its assorted portfolio incorporates a broad scope of cars, sports utility vehicles, trucks, transports, and safeguard vehicles. Tata Motors is one of India's biggest companies offering a broad scope of coordinated, shrewd and e-mobility arrangements. The company has 82,797 employees. In the year 2018-19 it sold 1,274,072 vehicles and has over 6,600 sales and service points all over the world.

Tata Motors has six Board of Directors and eight top level managers for a fluent and efficient functioning of the company. It has a Statutory and Non-Statutory Committees of Board. Statutory Committees of Board has five under bodies- audit committee, nomination & remuneration committee, corporate social responsibility committee, risk management, stakeholder relationship committee. Under Non-Statutory committee they have only one under body which is safety, health & sustainability committee.

Products and Operation

Tata Motors has assembling plants in India, Great Britain, South Korea, Thailand, Spain, and South Africa. It intends to set up more plants in Turkey, Indonesia, and Eastern Europe. The company is manufacturing over 30 commercial vehicles, over 15 military vehicles and has already unveiled its electric vehicles which will be soon launched.

Tata Motors has number of subsidiaries like Tata Motors cars, Tata Daewoo, Tata Hispano etc. Along with its joint ventures like Jaguar, Land Rover, Fiat-Tata, Tata Motors European Technical Centre etc.

Market

In 2018-19, the revenue of Tata companies, taken together, was \$113.0 billion. These companies collectively employ over 720,000 people. Each Tata company or enterprise operates independently under the guidance and supervision of its own board of directors. There are 28 publicly listed Tata enterprises with a combined market capitalization of over \$160 billion as on March 31, 2019. As of the year 2019, the company had assets summing up to \$23 billion US dollars and total equity being \$8,5 billion US dollars.

On 27 September 2004, Ratan Tata, the Chairman of Tata Motors, rang the opening bell at the New York Stock Exchange to mark the listing of Tata Motors.

Mission & Vision

They guarantee to enhance portability arrangements with energy to upgrade the personal satisfaction.

By financial year 2024, they promise to become the most aspirational Indian auto brand, consistently winning, by

- Delivering superior financial returns
- Driving sustainable mobility solutions
- Exceeding customer expectations, and
- Creating a highly engaged work force

4.2 Analysis of financial position- Balance sheet

Analysis of financial position of the company include the vertical and horizontal analysis of items of Balance sheet: assets, equity and liabilities, with the aim to identify the most significant items (by vertical analysis) and the changes over the years (by horizontal analysis).

4.2.1 Vertical analysis of assets

Vertical analysis shows the significance of different items under assets depending upon the percentage they make up from the total assets.

Table 3. Vertical analysis of assets 2017-2019 in crores

I. ASSETS	Year ended	March 31, 2017		March 31, 2018		March 31, 2019	
		Amount	%	Amount	%	Amount	%
1) NON-CURRENT ASSETS							
(a) Property, plant and equipment		17364.77	29.66%	18,192.52	30.72%	18316.61	30.07%
(b) Capital work-in-progress		1870.93	3.20%	1,371.45	2.32%	2146.96	3.52%
(c) Goodwill		99.09	0.17%	99.09	0.17%	99.09	0.16%
(d) Other intangible assets		2773.69	4.74%	3312.14	5.59%	3871.13	6.36%
(e) Intangible assets under development		5366.03	9.17%	3825.15	6.46%	4139.63	6.80%
(f) Investments in subsidiaries, joint ventures and associates		14778.87	25.25%	13950.6	23.56%	14770.81	24.25%
(g) Financial assets							
(i) Investments		528.37	0.90%	310.19	0.52%	663.38	1.09%
(ii) Loans and advance		389.61	0.67%	143.96	0.24%	143.13	0.23%
(iii) Other financial asset		196.32	0.34%	793.4	1.34%	994.39	1.63%
(h) Non-current tax assets (net)		724.58	1.24%	695.75	1.18%	715.3	1.17%
(i) Other non-current assets		1856.28	3.17%	1546.9	2.61%	1819.9	2.99%
		45948.54	78.50%	44240.64	74.72%	47680.33	78.28%
(2) CURRENT ASSETS							
(a) Inventories		5504.42	9.40%	5,670.13	9.58%	4662	7.65%
(b) Investments in subsidiaries and associate (held-for-sale)				681.91	1.15%	257.81	0.42%
(c) Financial assets							
(i) Investments		2400.92	4.10%	1820.87	3.08%	1175.37	1.93%
(ii) Trade receivables		2128.00	3.64%	3479.81	5.88%	3250.64	5.34%
(iii) Cash and cash equivalents		188.39	0.32%	546.82	0.92%	487.4	0.80%
(iv) Bank balances other than (iii) above		97.67	0.17%	248.6	0.42%	819.21	1.34%
(v) Loans and advances		231.35	0.40%	140.27	0.24%	200.08	0.33%
(vi) Other financial assets		100.76	0.17%	646.31	1.09%	1279.68	2.10%
(d) Current tax assets (net)		129.49	0.22%	73.88	0.12%	0	0.00%
(e) Assets classified as held for sale				223.33	0.38%	162.24	0.27%
(f) Other current assets		1807.06	3.09%	1439.73	2.43%	934.87	1.53%
		12588.06	21.50%	14971.66	25.28%	13229.3	21.72%
TOTAL ASSETS		58536.60	100.00%	59212.3	100.00%	60909.63	100.00%

Source: Own processing from Standalone financial statements of Tata motors FY 17-19

Table 3 shows the significance of every item under assets. Property, plant and equipment under non-current assets are made up to 30% circa in the monitored three years. Property, plant, and equipment are stated at the cost of acquirement excluding the accumulated depreciation or accumulated impairment, if any. This item includes sub-items like buildings, roads, bridges & culverts, freehold land, plant, machinery & equipment, computer & other IT assets, vehicles and furniture, fixtures & office appliances, all of which are amortized following a straight line method over the estimated useful lives of

the assets considering the nature, operating conditions, past, history of replacement, anticipated technological changes etc. While on the other hand, freehold land is not depreciated and measured at cost. Cost includes purchase price, taxes & duties, labor cost, and direct overheads incurred up to the date the asset is ready for its intended use. Considering these factors, the Company has decided to retain the useful life up to this time adopted for various categories of property, plant, and equipment, which are different from those prescribed in Schedule II of the Act. Interest cost is incurred for assets which are constructed by the company is capitalized up to date the asset is ready for its intended use. (annual report FY 19)

Second most crucial item is also under non-current assets which is investments in subsidiaries, joint ventures and associates comprising of 25% approximately of the total assets and fluctuating a little bit throughout these three years. This particular long-term investment in subsidiaries, joint ventures and associates is measured at cost as per IND AS - Separate Financial Statements. Although the amount of investments did not fluctuate by a significant number but there were some important changes in the types of investment the company was holding during the FY 19. Given the delay in completing the sale, the Company has reassessed the position on "Held for Sale" for the investment in the Company's subsidiary Tata Technologies Ltd. Accordingly, the Company concluded that these investments no longer meets the criteria of "Held for Sale" as per Ind AS 105. Hence, a part of investments was transferred from current to non-current investments. Also, during the same year the company had given the letter of comfort to ANZ bank, London for GBP 2 million against loan extended by the bank. Tata motors had also acquired 20% shares of a limited liability Italian company called Trilix srl, Turin (Italy). This shows that the company has a good goodwill and can pay its loans and debts easily creating a good sign for its investors and creditors.

Inventories hold the third position with somewhere between 7%-10% over these three years. Inventories are valued at the lower of cost and net realizable value. Cost of raw materials, components and consumables are ascertained on a moving weighted average basis. Cost, including fixed and variable production overheads, are allocated to work-in-progress and finished goods determined on a full absorption cost basis. Net realizable value is the estimated selling price in the ordinary course of business less estimated cost of completion and selling expenses.

Lastly, Intangible assets under development were the most volatile among these most crucial four items of the asset holding a share of 9.17% in the FY 17 which fell to 6.46% in the FY 18 and experiencing a

nominal rise in FY 19. Technological know-how and software are two important components of the intangible assets. Some intangible assets related to the assets which are held for sale and write off/provision for impairment under the intangible assets under development as the behavior of these two items is closely related to intangibles assets under development. The company also include Intangible assets purchased are measured at cost less accumulated amortization and accumulated impairment, if any. Amortization is provided on a straight-line basis over estimated useful lives of the intangible assets. Internally generated intangible assets are accounted in the statement of profit and loss in the year which they incurred.

4.2.2 Vertical analysis of liabilities and equity

Table 4 shows that other capital comprises of the largest share from the total equity and liabilities which sums up to 32%-35%. Other capital is a crucial item in the equity part of the financial report as it consists of other comprehensive income such as income tax relating gain/loss, profit on the sale of the other equity investment reclassified into retained earnings, positive/negative movement of the hedging fund and cost of hedging reserve. It also includes the reserves like capital redemption reserve, debenture redemption reserve, securities premium, retained premium, capital reserve, dividends and share-based payment reserve.

Capital redemption reserve: according to Indian Companies Act, 2013 when a company purchases its own shares out of free reserves or security premium account, a sum equal to the nominal value of the shares shall be transferred to a capital redemption reserve account. Tata Motors Limited build this reserve based on redemption of the reference shared in the previous years.

Debenture redemption reserve: the Indian Companies Act requires that when a company issue debenture that it shall maintain a debenture redemption reserve out of the profits of the company available for the payment of the dividend which is 25% of the debentures issued.

Retained earnings: these are the profit s that the company has earned till the date.

Capital reserve: it represents the excess of the identifiable assets and liabilities over the consideration paid.

Table 4. Vertical analysis of liabilities 2017-2019 (amount in crores)

II. EQUITY & LIABILITIES	Year ended	March 31, 2017		March 31, 2018		March 31, 2019	
		Amount	%	Amount	%	Amount	%
EQUITY							
(a) Equity share capital		679.22	1.16%	679.22	1.15%	679.22	1.12%
(b) Other capital		20129.93	34.39%	19491.76	32.92%	21483.3	35.27%
		20809.15	35.55%	20170.98	34.07%	22162.52	36.39%
LIABILITIES							
(1) NON-CURRENT LIABILITIES							
(a) Financial liabilities							
(i) Borrowings		13686.09	23.38%	13155.91	22.22%	13919.81	22.85%
(ii) Other financial liabilities		1123.66	1.92%	211.28	0.36%	180.8	0.30%
(b) Provisions		850.71	1.45%	1009.48	1.70%	1281.59	2.10%
(c) Deferred tax liabilities (net)		97.95	0.17%	154.61	0.26%	205.86	0.34%
(d) Other non-current liabilities		321.24	0.55%	291.09	0.49%	218.24	0.36%
		16079.65	27.47%	14822.37	25.03%	15806.3	25.95%
					0.00%		
					0.00%		
(2) CURRENT LIABILITIES							
(a) Financial borrowings							
(i) Borrowings		5375.52	9.18%	3099.87	5.24%	3617.72	5.94%
(ii) Trade payables		7015.21	11.98%	9411.05	15.89%		
(A) Total outstanding dues of micro and small enterprises					0.00%	126.96	0.21%
(B) Total outstanding dues of creditors other than micro and small enterprises					0.00%	10281.87	16.88%
(iii) Acceptances		4379.29	7.48%	4814.58	8.13%	3093.28	5.08%
(iv) Other financial liabilities		2465.14	4.21%	4091.16	6.91%	2237.98	3.67%
(b) Provisions		467.98	0.80%	862.92	1.46%	1148.69	1.89%
(c) Current tax liabilities (net)		80.64	0.14%	21.77	0.04%	78.3	0.13%
(d) Other current liabilities		1864.02	3.18%	1917.6	3.24%	2356.01	3.87%
		21647.8	36.98%	24218.95	40.90%	22940.81	37.66%
TOTAL EQUITY & LIABILITIES		58536.6	100.00%	59212.3	100.00%	60909.63	100.00%

Source: Own processing from Standalone financial statements of Tata motors FY 17-19

Hedge accounting: Every company is using foreign currency forward contracts to hedge its risks related to with foreign currency regarding foreign currency forecast transactions having a very high probability. Any fluctuation in the fair value of these forward contracts leads to the recognition of the hedges of these future cash flow and are acknowledged in the comprehensive income and the ineffective part falls to the statement of profit and loss immediately.

Securities premium: the amount received in excess of face value of the equity shares is recognised in Securities Premium.

Dividends: The Board of Directors review the final dividend which is, thereafter, recorded in the books of accounts upon its approval by the Shareholders. For the year ended March 31, 2019 and 2018, considering the accumulated losses in the Tata Motors Limited Standalone, no dividend was permitted to be paid to the members, as per the Companies Act, 2013 and the rules framed thereunder. For the year ended March 31, 2019, considering the previous years' losses in Tata Motors Limited (standalone), no dividend is permitted to be paid to members, as per the Companies Act, 2013 and the Rules framed thereunder.

Share-based payments reserve: it represents amount of fair value, as on the date of grant, of unvested options and vested options not exercised till date, that have been recognised as expense in the statement of profit and loss till date.

Second item that comprises of a big share is long term borrowing which is between 22%-24% which includes two types of sub items i.e. Secured and unsecured borrowings. Secured borrowings are composed of privately placed non-convertible debentures, bank term loans and finance lease obligations. On the other hand, unsecured borrowings embody unsecured privately place non-convertible debentures, commercial borrowings, and senior notes. Under secured borrowings, the company has three types of sub-items. First, only privately placed Non-Convertible Debentures which are rated, listed and secured having a 9.95% coupon. Second, Term loan from banks of `587.58 crores included within Long-term borrowings and `88.48 crores included within Current maturities of Long-term borrowings in note 26, bearing floating interest rate of 1 month LIBOR + 1.63% and 1 year MCLR(marginal cost of funds lending rate) + 0.10% are taken by joint operation Fiat India Automobiles Private Ltd which is due for repayment from June 2019 to May 2023. The loan is secured by first charge over fixed assets procured from its loan/jeep project. Other term loans include i)for the time span of 7 years with a simple interest of 0.10% per annum secured by company's freehold land and other movable assets such as stock and book debts ii) second for term of 4 years with an annual simple interest of 0.01% secured by the bank guarantee for the due performance of the conditions as per the terms of agreement.

Finance lease obligations: A finance lease is recognised as an asset and a liability at the commencement of the lease, at the lower of the fair value of the asset and the present value of the minimum lease payments. Initial direct costs, if any, are also capitalised and, subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset. Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction

of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Unsecured long-term borrowings include privately placed Non-Convertible Debentures with various coupon dividend, term loans and senior notes (type of capital management instrument which can be arranged from the debt market and is used to meet long-term and short-term fund requirements of the company).

Unsecured term loan i) buyer's line of credit at floating rate of interest repayable within a maximum period of five years from the drawdown dates ii) The external commercial borrowings bearing floating interest as well.

4.2.3 Horizontal analysis of assets

Under this horizontal analysis, I have chosen 2017 as my base year to calculate the change in the different items under assets for the next two years. The biggest positive change can be observed in the item other financial assets both under the heading current assets and non-current assets which is as big as 541.44% in the year 2018 and 1170.03% in the year 2019 under non-current assets reflecting the biggest credit exposure in that year. While on the other side, it wasn't that big under the current assets i.e. 304.14% in the year 2018 and 406.51% in the year 2019 as compared to the base year 2017. Although, we know that other financial assets under non-current and non-current assets was not an important item as it comprised of less than 2% approximately in all the years, it still increases the credit risk the company possesses which encompasses both the direct risk and the risk of deterioration of the creditworthiness as well as concentration risk. Current other financial assets comprise of derivative financial instruments, accrued interests on loans, deposits with financial institutions, finance lease receivable, interim dividend, government incentives and receivables from suppliers. Other financial assets under non-current assets embodies items like long term derivative financial instruments, restricted deposits, long term finance lease receivables, government long-term incentives, receivables from suppliers matured in long-term and others. Second biggest significant change is noticeable in the item cash and cash equivalent in the year 2018 made up to 190.26% and in item bank balances in the year 2019 which aggregated to 738.75%. Cash and cash equivalents are short-term (three months or less from the date of acquisition), highly liquid investments that are readily convertible into cash and which are subject to an insignificant risk of

changes in value (annual report FY 2017-19). It includes cash on hand, cheques on hand, balances with banks which means remittances in transit and deposits with banks.

Table no. 5 showing horizontal analysis of assets FY 2017-2019

HORIZONTAL ANALYSIS WITH THE BASE YEAR 2017						
I. ASSETS	Year ended		March 31, 2018		March 31, 2019	
	Amount	%	Amount	%	Amount	%
1) NON-CURRENT ASSETS						
(a) Property, plant and equipment	17364,77	0%	18 192,52	4,77%	18316,61	5,48%
(b) Capital work-in-progress	1870,93	0%	1 371,45	-26,70%	2146,96	14,75%
(c) Goodwill	99,09	0%	99,09	0,00%	99,09	0,00%
(d) Other intangible assets	2773,69	0%	3312,14	19,41%	3871,13	39,57%
(e) Intangible assets under development	5366,03	0%	3825,15	-28,72%	4139,63	-22,85%
(f) Investments in subsidiaries, joint ventures and associates	14778,87	0%	13950,6	-5,60%	14770,81	-0,05%
(g) Financial assets						
(i) Investments	528,37	0%	310,19	-41,29%	663,38	25,55%
(ii) Loans and advance	389,61	0%	143,96	-63,05%	143,13	-63,26%
(iii) Other financial asset	196,32	0%	793,4	304,14%	994,39	406,51%
(h) Non-current tax assets (net)	724,58	0%	695,75	-3,98%	715,3	-1,28%
(i) Other non-current assets	1856,28	0%	1546,9	-16,67%	1819,9	-1,96%
	45948,54	0%	44240,64	-3,72%	47680,33	3,77%
(2) CURRENT ASSETS						
(a) Inventories	5504,42	0%	5 670,13	3,01%	4662	-15,30%
(b) Investments in subsidiaries and associate (held-for-sale)			681,91		257,81	
(c) Financial assets						
(i) Investments	2400,92	0%	1820,87	-24,16%	1175,37	-51,05%
(ii) Trade receivables	2128,00	0%	3479,81	63,52%	3250,64	52,76%
(iii) Cash and cash equivalents	188,39	0%	546,82	190,26%	487,4	158,72%
(iv) Bank balances other than (iii) above	97,67	0%	248,6	154,53%	819,21	738,75%
(v) Loans and advances	231,35	0%	140,27	-39,37%	200,08	-13,52%
(vi) Other financial assets	100,76	0%	646,31	541,44%	1279,68	1170,03%
(d) Current tax assets (net)	129,49	0%	73,88	-42,95%	0	-100,00%
(e) Assets classified as held for sale			223,33		162,24	
(f) Other current assets	1807,06	0%	1439,73	-20,33%	934,87	-48,27%
	12588,06	0%	14971,66	18,94%	13229,3	5,09%
TOTAL ASSETS	58536,60	0%	59212,3	1,15%	60909,63	4,05%

Source: own processing from the annual report of Tata motors FY 2017-19

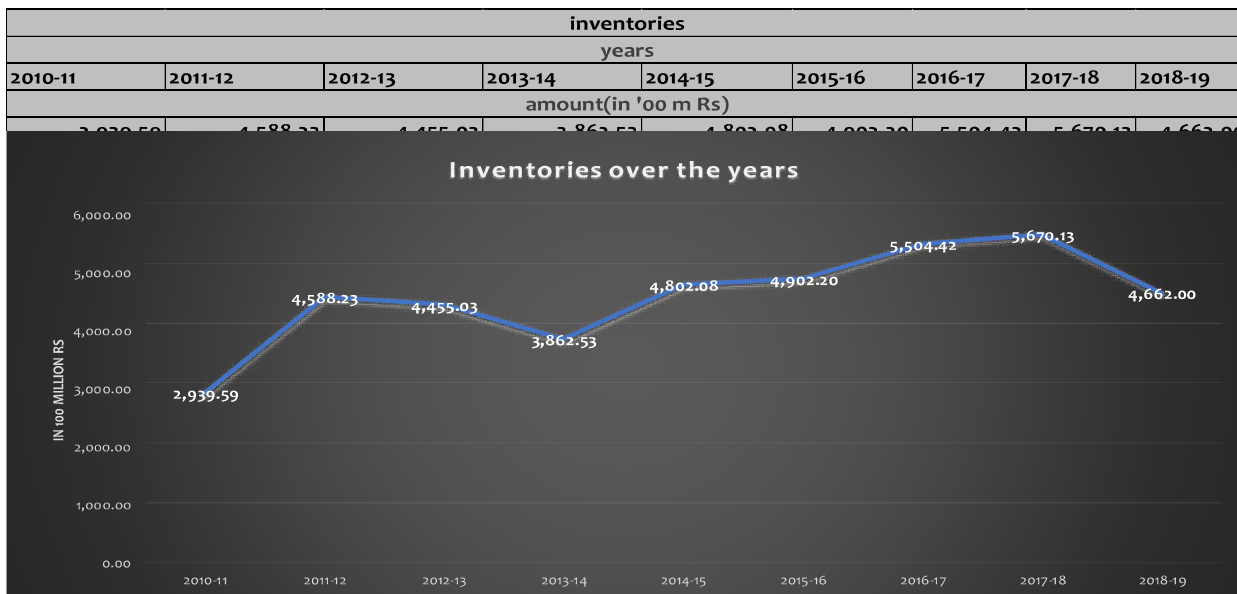
Bank balances other than cash and cash equivalents have the maturity up to 12 months similar to cash and cash equivalent including earmarked balance with banks which are held with the banks as a security in relation to the repayment of the borrowings and bank deposits. Even though that cash and cash equivalent composed of not even a percentage and bank balance being slightly over a percentage at its maximum of the total assets according the vertical analysis, they still are quite important items in the balance sheet as they disclose or reflect the liquidity of the company in relation to time, meaning that if the company would face a shutdown in any case then it will have enough money to pay its creditors. Hence, an increase in cash and cash equivalents or bank balance is a convincing point in the financial report. Also, we can notice that intangible assets under development decreased by 28% in FY 18 and

22% roughly in FY 19 which answers to the increment in the intangible assets as the intangible assets. Last important thing I would like to point out is that other important assets which composed of majority of the share in the vertical analysis show a mere volatility which again is an encouraging sign for the shareholders and other creditors.

Inventory sometimes also referred as stock is a part of current assets as it can be converted into cash within a time span of one year. In the calculation of inventories of inventories, we include raw materials and components, work-in-progress, finished goods, stores and spare parts, consumable goods and goods in transit. Amount of inventory at the beginning of an accounting period is called opening stock. Similarly, inventory lying unsold at the end of an accounting period is called closing stock.

Inventories are estimated at the lower of cost and net feasible worth. Cost of raw materials, components and consumables are determined on a moving weighted normal basis. Cost, including fixed and variable creation overheads, are allotted to work-in-progress and completed merchandise decided on a full absorption cost basis. Net feasible worth is the evaluated selling price in the conventional course of business less assessed cost of completion and selling expenses (annual report, Tata motors). Tata motors maintain an average of 410 billion rupees worth of inventories every year for an optimal functioning of the enterprise. We can observe a fluctuation in the inventory worth over the period of 9 year, but it also shows an eventual rise in the value of the inventory which reflects the growth of company's operations.

Table 5. Change in the amount of inventories 2011-2019



Source: Standalone financial statement of Tata motors 10-19

4.2.4 Horizontal analysis of liabilities and equity

After my three years of horizontal analysis of liabilities, I found out that some items under equities & liabilities have a significant decrease while some an important increase in the figures in FY 18 & 19 as compared to the base year 2017. As you can see that other financial liabilities under non-current liabilities have a huge downturn in the year 2018 and 2019. Other financial liabilities decreased by 81.2% and 83.91% respectively. Long-term other financial liabilities include derivatives financial instruments, liabilities towards employee separation scheme and other non-current petty liabilities. “A financial liability is decreased or derecognised when they are extinguished, that is when the obligation is discharged, cancelled or expired” (annual report FY19). In our case, it is possible that some of the financial liabilities have been completely discharged while some have been partially paid off leading to a decrease in the total amount.

Table 6. Horizontal analysis of equity and liabilities 2017-2019 (amounts in crores)

II. EQUITY & LIABILITIES	Year ended		March 31, 2017		March 31, 2018		March 31, 2019	
	Amount		Amount	%	Amount	%	Amount	%
EQUITY								
(a) Equity share capital	679.22	0	679.22	0.00%	679.22	0.00%	679.22	0.00%
(b) Other capital	20129.93	0	19491.76	-3.17%	21483.3	6.72%		
	20809.15	0	20170.98	-3.07%	22162.52	6.50%		
LIABILITIES								
(1) NON-CURRENT LIABILITIES								
(a) Financial liabilities								
(i) Borrowings	13686.09	0	13155.91	-3.87%	13919.81	1.71%		
(ii) Other financial liabilities	1123.66	0	211.28	-81.20%	180.8	-83.91%		
(b) Provisions	850.71	0	1009.48	18.66%	1281.59	50.65%		
(c) Deferred tax liabilities (net)	97.95	0	154.61	57.85%	205.86	110.17%		
(d) Other non-current liabilities	321.24	0	291.09	-9.39%	218.24	-32.06%		
	16079.65	0	14822.37	-7.82%	15806.3	-1.70%		
(2) CURRENT LIABILITIES								
(a) Financial borrowings								
(i) Borrowings	5375.52	0	3099.87	-42.33%	3617.72	-32.70%		
(ii) Trade payables	7015.21	0	9411.05	34.15%	10408.83	48.38%		
(A) Total outstanding dues of micro and small enterprises							126.96	
(B) Total outstanding dues of creditors other than micro and small enterprises							10281.87	
(iii) Acceptances	4379.29	0	4814.58	11.04%	3093.28	-29.37%		
(iv) Other financial liabilities	2465.14	0	4091.16	65.96%	2237.98	-9.21%		
(b) Provisions	467.98	0	862.92	83.39%	1148.69	145.46%		
(c) Current tax liabilities (net)	80.64	0	21.77	-73.00%	78.3	-2.90%		
(d) Other current liabilities	1864.02	0	1917.6	2.87%	2356.01	26.39%		
	21647.8	0	24218.95	11.88%	22940.81	5.97%		
TOTAL EQUITY & LIABILITIES	58536.6	0	59212.3	1.15%	60909.63	4.05%		

Source: Own processing from Standalone financial statements of Tata motors FY 17-19

Also, other financial liabilities are measured at amortised cost using effective interest method. Sometimes, “certain financial liabilities are subject to offsetting (cancelling by an equal or opposite entry) where there is currently a legally enforceable right to set off recognised amounts and the Company intends to either settle on a net basis, or to realise the asset and settle the liability, simultaneously” (annual report FY 19). Since, other financial liabilities aggregate only 1%-2%, it does not represent a significant change in the balance sheet. At the same time, part of non-current financial liabilities i.e. Borrowings decreased by a 3.87% at the end in FY 18 which represents up to 23% approximately of the total liabilities. This change was subject to a prepayment of senior notes from a fund raised through an external borrowing and a slight change in secured and unsecured debentures.

Another characteristic item having a big change when compared to the base year is the item provision. “There are certain expenses/losses which are related to the current accounting period but amount of which is not known with certainty because they are not yet incurred” (NCERT). It has an increment of 84.39% in the year 2018 and 145.46% in the year 2019 as compared to the base year 2017 under current liabilities. This change was mainly due to an increase in the warranties during FY 18 and 19. Short-term provisions also include short-term employee benefits obligations, short-term warranty, short-term annual maintenance contract other short-term provisions which were slightly volatile. However, the increase in non-current provisions was subject to an upswing in all the items under provisions except annual maintenance contract (AMC) and other petty provisions.

Employee benefit obligation: *“this is a type of provision that includes benefits paid to the employee, directors and other managerial personnel of the company who are listed under the international accounting standard 19. Short-term employee benefits are monetary benefits that are payable within 12 months after the end of the period in which services are rendered and the non-monetary benefits for current employees. Postemployment benefit plans are the formal or informal arrangements under which the employer provides postemployment benefits to the employees.”* Other long-term employee benefits include the share of profits payable after 12 months of the reporting date, benefits payable on long-term disability of employees etc. The termination benefits are either paid as a lump sum amount or paid over a period of time as enhanced retirement benefits or continued salary payments for a period of time.” (Yong Li and Paul J. M. Klumpes, Determinants of Expected Rate of Return on Pension Assets: Evidence from the UK, *SSRN Electronic Journal*, 10.2139/ssrn.989559, 2007)

According to the vertical analysis of equity and liabilities other capital under equity stands out as the most important item and showed a small fluctuation in the FY 18 with a decrease of 3.17% and an increase of the 6.72% in FY 19 in comparison to the base year 2018.

“Deferred tax liability represents timing differences where current benefit in tax will be offset by a debit in the statement of profit and loss” (annual report FY 19). It showed an increment of 57% in FY 18 and doubled this difference to 110% in FY 19. On the other side, current net tax liabilities showed a decrease by 72% in FY 18 as compared to FY 17.

4.3 Analysis of financial performance- Statement of profit and loss

Analysis of financial performance of the company include the vertical and horizontal analysis of items of the Statement of profit and loss: expenses and revenues, with the aim to identify the most significant items (by vertical analysis) and the changes over the years (by horizontal analysis).

4.3.1 Vertical analysis of parts of the Statement of Profit & Loss over three years

Revenues

Table 7. Vertical analysis of revenues separately (amounts in crores)

PARTICULARS	Year ended	31-Mar-17		31-Mar-18		31-Mar-19	
			%		%		%
Revenue from operations							
Revenue from operations						68764.88	99.37%
Other operating revenue						437.88	0.63%
I. Total revenue from operations		49100.4	100%	59624.69	100%	69202.76	100.00%

Source: own processing from the Statement of Profit & Loss from the financial statements of the Tata motors

Table 7 shows a separate vertical analysis of the revenues. The company choose to show other operating revenues separately in the FY 19 while in the FY 18 and FY 17 they included other operating revenues in the item revenue from operations but gave some information about the same in the notes forming part of financial statements. In FY 19 we can see clearly that revenue from operations is the most significant item 99.37%. From notes to financial statements I found out that under revenue from operations there are four sub-items namely: sale of products (including excise duty), sale of services, finance revenues and other operating revenues. From these four items sale of products stan out because it comprises of the biggest share in all the years. In FY 17, FY 18 and FY 19 sale of products were 97.7%, 97.05% and

99.37% respectively. Also, if we compare the total revenue of all these years then we can see clearly that the revenue has been constantly rising mainly due to an increase in the sale of products. From the information provided in the notes, I got to know that other operating revenue stood at 1.44% of the total revenue in the CY 17 while in FY 18 it stood at 2.33 % which is quite a big change and again the share of other operating revenue declined to 0.63% in FY 19. Other operating revenue export and other incentives worth a significant amount. Finance revenues comprises of an unimportant share of the total revenue. Sales of service comprised of less than 1% in all the three years.

*Gain/loss from exchange on hedges reclassified from hedge reserve to statement of profit loss. It is important to note that sale of products for the year ended March 31, 2018 is not comparable with the year ended March 31, 2017 because of the change in the government rules and regulations. With effect from July 1, 2017, Central Excise, Value Added Tax, etc have been replaced by Goods and Service Tax. In accordance with IND AS 18 and Revenue and Schedule III of the Companies Act, 2013, Goods and Service Tax and Goods and Service Tax Compensation are not included in Revenue from Operations for applicable periods.

“Excise duty for the Fiscal 2018 represents the reversal of excise duty on closing inventories as at July 1, 2017. Consequent to the introduction of Goods and Service Tax (GST) with effect from July 1, 2017, Central Excise, Value Added Tax (VAT) etc. Have been replaced by GST. Excise duty for Fiscal 2018 was 793.28 crores Rupees in Fiscal 2018 as compared to 4,738.15 crores Rupees in Fiscal 2017. Of this recovery from sales was `1,168.14 crores for Fiscal 2018 as compared to `4,623.54 crores for Fiscal 2017. The same has been netted off against Revenue from operations to be comparable for discussion of performance.”
(Annual report FY 2019)

Expenses

In table 8 Cost of materials seems to be the most crucial item as it acquires 53.02%, 60.63% and 63.26% in FY 17, FY 18 and FY 19 respectively. This item consists of consumption of raw materials & components, purchase of product for sale and change in inventories of finished goods, work-in-progress & products for sale. Of these three sub-items consumption of raw materials is the item which constitutes majority of the share. We can notice a rise in the consumption of materials consumed in the following years, this change was mainly due to product mix (financial report). Cost of materials consumed composed 53.02% of the share in FY 17, rose to 60.63% in FY 18 and rose again to 63.26% in FY 19. Due to companies brutal product mix strategies to offer a wider variety of products to the world, cost of materials consumed

composed of a bigger share of the total expenses even when the amount of total expenses increased which shows that cost of materials consumed grew really fast. From notes to financial statement, I got to know that sub-item that composed of the biggest share from cost of materials consumed was consumption of raw materials and components. The latter grew purely and being the main reason of the increase in the cost of materials consumed which.

Table 8. Vertical analysis of expenses separately

PARTICULARS	Year ended		31-Mar-17		31-Mar-18		31-Mar-19	
		%		%		%		%
IV. Expenses								
(a) Cost of materials consumed	27654.4	53.02%	37080.45	60.63%	43748.77	63.26%		
(b) Purchases of products for sale	3945.97	7.56%	4762.41	7.79%	6722.32	9.72%		
(c) Changes in inventories of finished goods, work-in-progress and products for sale	-251.43	-0.48%	842.05	1.38%	144.69	0.21%		
(d) Excise duty	4736.41	9.08%	793.28	1.30%	0.00	0.00%		
(e) Employee benefit expenses	3558.52	6.82%	3966.73	6.49%	4273.10	6.18%		
(f) Finance costs	1590.15	3.05%	1744.43	2.85%	1793.57	2.59%		
(g) Foreign exchange loss (net)	-252.45	-0.48%	17.14	0.03%	215.22	0.31%		
(h) Depreciation and amortisation expenses	2969.39	5.69%	3101.89	5.07%	3098.64	4.48%		
(i) Product development/Engineering expenses	454.48	0.87%	474.98	0.78%	571.76	0.83%		
(j) Other expenses	8697.42	16.67%	9234.27	15.10%	9680.46	14.00%		
(k) Amount transferred to capital and other accounts/Amount capitalised	-941.55	-1.81%	-855.08	-1.40%	-1093.11	-1.58%		
Total expenses (IV)	52161.3	100%	61162.55	100.00%	69155.42	100.00%		

Source: own processing from the Statement of Profit & Loss from the financial statements of the Tata motors

Consumption of raw materials and components increased as the company is producing more and more variety products. Hence, increasing product mix. However, other sub-items under cost of materials consumed showed a volatile nature over the three years. Second main item under expenses is 'other expenses' as it constitutes of the second largest share of the total expenses. In FY 17 the share of other expenses from the total expenses was 16.67%, in FY 18 the amount if other expenses increase but still the share decreased from total expenses and stood at 15.10%. Similarly, in FY 19 the amount of other expenses increased and the share from total expenses on the contrary decreased to 14%. Other expenses include i) processing charges, ii) consumption of stores & spare part, iii) freight, transportation, port charges etc., iv) warranty expenses, v) power and fuel, vi) information technology/ computer expenses, vii) publicity, viii) allowances made/ (reversed) from trade and other receivables, ix) assets scrapped/ written off, x) works operation.

Exceptional items

Exceptional items itself are not really a crucial item in the statement of profit and loss based on the amount of the sub-items but the behavior of these items can be very complicated for the entity/person

preparing the financial statements. As it can be seen in Table 9, various items stand out in different years. In FY 17 other exceptional made up the biggest percentage (43.67%) followed by provision for impairment in subsidiary company with 36.36% of the total other exceptional expenses. Other exceptional items in FY 17 and FY 18 are related to a provision for vehicle inventory while in FY 19 it includes a provision related to an agreement of a company with Tata Advance Systems Ltd (transferee company), for an upfront consideration of some amount with some interest revenue in the future.

Table 9. Vertical analysis of exceptional items separately

PARTICULARS	Year ended	31-Mar-17	%	31-Mar-18	%	31-Mar-19	%
VI. Exceptional items							
(a) Employee separation costs		67.61	19.96%	3.68	0.38%	4.23	2.08%
(b) Write off/provision of capital work-in-progress and intangibles under development (net)		0	0.00%	962.98	99.62%	180.66	88.96%
(c) Provision for impairment of investments in subsidiary company		123.17	36.36%	0.00	0.00%	241.86	119.10%
(d) Profit on sale of investment in a subsidiary company		0	0.00%	0.00	0.00%	-332.95	-163.96%
(d) Others		147.93	43.67%	0.00	0.00%	109.27	53.81%
Total exceptional items		338.71	100.00%	966.66	100.00%	203.07	100.00%

Source: own processing from the Statement of Profit & Loss from the financial statements of the Tata motors

In FY 18 as you can see that 99.62% of total expenses are constituted by write off/provision of capital work-in-progress and intangibles under development (net) which reduced to 89.96% in the following year i.e. FY 19 as the provision was written off partly because the program for making the company fit for future started in FY 18. Also, we can notice that employ separation cost has reduced its share by percentage and also decreased by the amount as the company decided to give early retirement to lesser employees for which the expenses were incurred. We can also notice that there was a profit on the sale of an investment to Tata Advanced Systems Ltd. Which is marked in red. It is negative as it is under the items exceptional items which are deducted from the revenue and by having it as a negative number, it reduces the amount exceptional items reduced from the revenue or in other words, it is being added to the revenue.

Other comprehensive income/(loss)

Table 10. Vertical analysis of comprehensive income or loss separately

PARTICULARS	Year ended	31-Mar-17	%	31-Mar-18	%	31-Mar-19	%
X. Other comprehensive income/(loss)							
(A) (i) Items that will not be reclassified to profit and loss:							
(a) Remeasurement gains and (losses) on defined benefit obligations (net)		10.18	10.66%	18.24	42.20%	-67.14	286.56%
(b) Equity instruments at fair value through other comprehensive income		73.84	77.34%	44.04	101.90%	55.44	336.62%
(ii) Income tax (expense)/credit relating to items that will not be reclassified to profit or loss		-3.79	-3.97%	-6.27	-14.51%	18.07	-77.12%
(B) (i) Items that will be reclassified to profit or loss- gains and (losses) in cash flow hedges		23.32	24.42%	-19.56	45.26%	-45.72	195.13%
(ii) Income tax (expense)/credit relating to items that will be reclassified to profit or loss		-8.07	-8.45%	6.77	15.66%	15.92	67.95%
Total other comprehensive income/(loss), net of taxes		95.48	100%	43.22	100%	-23.43	100.00%

Source: own processing from the Statement of Profit & Loss from the financial statements of the Tata motors

Table 10 shows that in FY 17 equity instruments at fair value through other comprehensive income under the items that will not be reclassified to profit and loss comprised of the biggest percentage i.e. 77.34%. It is important to note that the dividends from these equity investments are recognised in the statement of Profit and Loss when the right to receive payment has been established. In FY 18, same items composed of the largest share even when the amount of the particular investment decreased. These equity comprehensive income investment increased again in FY 19 but the percentage of the share occupied by them is negative as in the particular year the company experienced a total comprehensive loss due to loss in net remeasurement defined benefit obligations in the particular year and loss in cash flow hedge which will be reclassified to profit or loss.

* An equity instrument is any contract that evidences residual interests in the assets of the Company after deducting all of its liabilities. Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

4.3.2 Horizontal analysis of the Statement of Profit & Loss

Table 11 shows the results of a financial analysis for years 2017-2017, with the year 2017 as a base year. In the percentage change column, the blue colour shows a positive change or an increment in the profit & loss statement and red colour for a negative change or a decrement in the same.

The first item in the profit and loss statement, also the biggest number in the same i.e. Revenue from operations has increased by 20% and 40% in the years 2018 and 2019 as compared to the base year 2017. Cost of materials consumed is the second largest amount in this financial statement and it also showed an increase to by 34% in the year 2018 and by 58.2% in the year 2019 as compared to the base

year. Another important item according to the horizontal analysis is the 'income tax' which was volatile in the past three years. Current tax and deferred tax are two heads of income tax which are included in the statement of profit and loss. "Current income taxes are determined based on respective taxable income of each taxable entity and tax rules applicable in respective tax jurisdictions". (annual report 2018-19)

Under the heading X.(B) (i) income tax (expense)/credit relating to the items that will be reclassified to profit/loss, we can see increase by 184% in the year 2018 and by 297.27% in the year 2019 as compared to the base year i.e. 2017. Under this item, some items related to disputes and uncertain tax treatment are included. "It relates to tax consequence of an item whose tax treatment is uncertain. Tax treatment of an item is considered as uncertain when there is uncertainty whether the relevant taxation authority will accept the tax treatment of that item or not. For example, if an entity has not included a particular income in taxable profit, it will be considered as uncertain tax treatment if its acceptability by taxation authority is uncertain. The amendment has been brought by introducing a new Appendix C to Ind AS 12" (annual report, Tata motors)

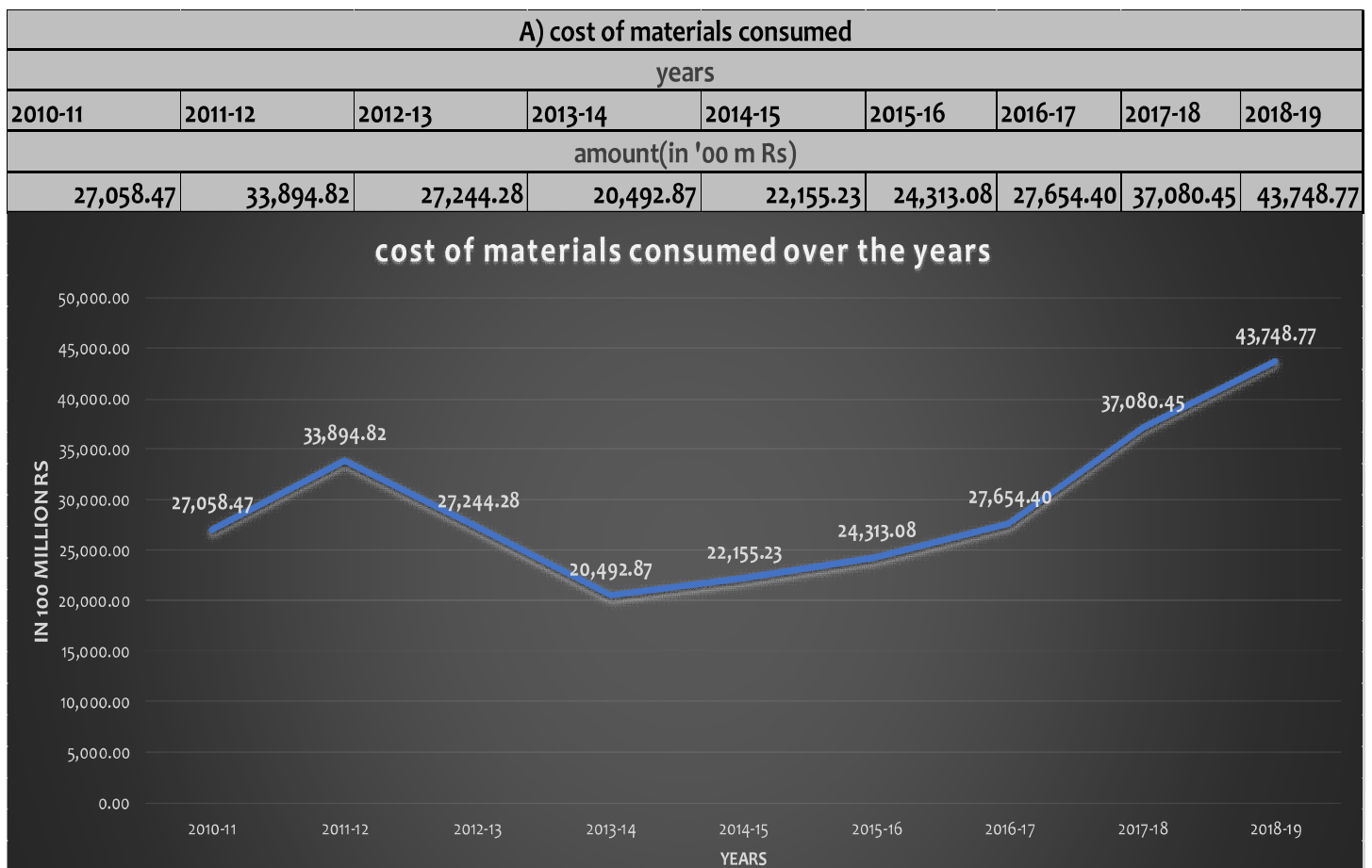
Other expenses increased as compared to previous years due to hike in freight charges, increased publicity expenses with brand product campaigns, expenses incurred on new product introduction campaigns, motor show etc., warranty period being increased for selected products from four to six years, assets written off. On the other side, works operation and related other expenses decreased a bit in the year in FY 18 & FY 19 as compared to FY 17 without affecting the total other expenses and leading to an overall increase in other expenses.

Table 11. Horizontal analysis of the Statement of Profit & Loss 2017-2019 (amounts in crores)

PARTICULARS	Year ended	31-Mar-17	%	31-Mar-18	%	31-Mar-19	%
Revenue from operations							
Revenue from operations		49100.4	0%	59624.69	21%	68764.88	40%05%
Other operating revenue						437.88	
I. Total revenue from operations		49100.4	0%	59624.69	21%	69202.76	40%94%
II. Other income		978.84	0%	1557.60	59%	2554.66	160%99%
III. Total income (I+II)		50079.3	0%	61182.29	22%	71757.42	43%29%
IV. Expenses							
(a) Cost of materials consumed		27654.4	0%	37080.45	34%	43748.77	58%20%
(b) Purchases of products for sale		3945.97	0%	4762.41	21%	6722.32	70%36%
(c) Changes in inventories of finished goods, work-in-progress and products for sale		-251.43	0%	842.05	435%	144.69	15%55%
(d) Excise duty		4736.41	0%	793.28	-83%		-100%00%
(e) Employee benefit expenses		3558.52	0%	3966.73	11%	4273.10	20%08%
(f) Finance costs		1590.15	0%	1744.43	10%	1793.57	12%79%
(g) Foreign exchange loss (net)		-252.45	0%	17.14	107%	215.22	185%25%
(h) Depreciation and amortisation expenses		2969.39	0%	3101.89	4%	3098.64	4%35%
(i) Product development/Engineering expenses		454.48	0%	474.98	5%	571.76	25%81%
(j) Other expenses		8697.42	0%	9234.27	6%	9680.46	11%30%
(k) Amount transferred to capital and other accounts/Amount capitalised		-941.55	0%	-855.08	-9%	-1093.11	16%10%
Total expenses (IV)		52161.3	0%	61162.55	17%	69155.42	32%58%
V. Profit before exceptional items and tax (III-IV)		-2082.1	0%	19.74	101%	2602.00	224%97%
VI. Exceptional items							
(a) Employee separation costs		67.61	0%	3.68	-95%	4.23	-93%74%
(b) Write off/provision of capital work-in-progress and intangibles under development (net)				962.98	-100%	180.66	96%36%
(c) Provision for impairment of investments in subsidiary company		123.17	0%		-100%	241.86	96%36%
(d) Profit on sale of investment in a subsidiary company					-100%	-332.95	-100%00%
(d) Others		147.93	0%		-100%	109.27	-26%13%
VII. Profit/(loss) before tax (V-VI)		-2420.8	0%	-946.92	61%	2398.93	199%10%
VIII. Tax expenses/(credit)(net)							
(a) Current tax (including Minimum Alternate Tax)		44.52	0%	92.63	108%	294.66	561%86%
(b) Deferred tax		14.7	0%	-4.70	-132%	83.67	469%18%
Total tax expense		59.22	0%	87.93	48%	378.33	538%86%
IX. Profit/(loss) for the year from continuing operations (VII-VIII)		-2480	0%	-1034.85	58%	2020.60	181%48%
X. Other comprehensive income/(loss)							
(A) (i) Items that will not be reclassified to profit and loss:							
(a) Remeasurement gains and (losses) on defined benefit obligations (net)		10.18	0%	18.24	79%	-67.14	-759%53%
(b) Equity instruments at fair value through other comprehensive income		73.84	0%	44.04	-40%	55.44	-24%92%
(ii) Income tax (expense)/credit relating to items that will not be reclassified to profit or loss		-3.79	0%	-6.27	-65%	18.07	576%78%
(B) (i) Items that will be reclassified to profit or loss- gains and (losses) in cash flow hedges		23.32	0%	-19.56	-184%	-45.72	-296%05%
(ii) Income tax (expense)/credit relating to items that will be reclassified to profit or loss		-8.07	0%	6.77	184%	15.92	297%27%
Total other comprehensive income/(loss), net of taxes		95.48	0%	43.22	-55%	-23.43	-124%54%
XI. Total comprehensive income/(loss) for the year (IX+X)		-2384.5	0%	-991.63	58%	1997.17	183%76%
XII. Earnings per equity share (EPS)							
(A) Ordinary shares (face value of Rs 2 each):							
(i) Basic		-7.3	0%	-3.05	58%	5.94	181%37%
(ii) Diluted		-7.3	0%	-3.05	58%	5.94	181%37%
(B) 'A' Ordinary shares (face value of Rs 2 each):							
(i) Basic		-7.3	0%	-3.05	58%	6.04	182%74%
(ii) Diluted		-7.3	0%	-3.05	58%	6.04	182%74%

Source: own processing from the Standalone Financial statements of the Tata motors FY 17-19

Table 12. Change in cost of materials consumed over the period of 9 years



Source: own processing from the Standalone Financial statements of the Tata motors

Cost of materials consumed can be calculated as opening stock+ purchases- closing stock. “In a manufacturing company, closing stock comprises raw materials, semi-finished goods and finished goods on hand on the closing date. Similarly, opening stock (beginning inventory) is the amount of stock at the beginning of the accounting period while all purchases are defined as the raw materials procured by the company or the purpose of developing them into finished goods and selling them further, these goods can be purchased by cash or on credit based on the agreement. It is important to remember that cost of materials consumed does not include any overhead expenses” (NCERT 2018). Cost of materials consumed can be calculated with or without including change in stock. Consumption of raw materials and components, basis adjustment on accounted derivatives, purchased products for sale, change in inventories of finished goods, work-in-progress and products for sale constitutes of cost of materials consumed in the annual report of Tata motors. Cost of materials consumed also constitute to the cost capitalized along with other items.

Cost of materials consumed rose in the beginning and then fell followed by a consecutive increase until the year 2019 which is mainly attributable to a change in the product mix. Other factors which contribute to the upturn of cost of materials are an increase in the input cost and import duties as they are not fully absorbed through pricing.

Another important item according to the horizontal analysis is the income tax which was volatile in the past three years. Current tax and deferred tax are two heads of income tax included in the statement of profit and loss. "Current income taxes are determined based on respective taxable income of each taxable entity and tax rules applicable in respective tax jurisdictions". (annual report 2018-19)

"Current and deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Company intends to settle its current tax assets and liabilities on a net basis". (page 214 annual report 2018-19)

Under the heading X.(B) (i) income tax (expense)/credit relating to the items that will be reclassified to profit/loss, we can see increase by 184% in the year 2018 and by 297.27% in the year 2019 as compared to the base year i.e. 2017. Under this item, some items related to disputes and uncertain tax treatment are included. "It relates to tax consequence of an item whose tax treatment is uncertain. Tax treatment of an item is considered as uncertain when there is uncertainty whether the relevant taxation authority will accept the tax treatment of that item or not. For example, if an entity has not included a particular income in taxable profit, it will be considered as uncertain tax treatment if its acceptability by taxation authority is uncertain. The amendment has been brought by introducing a new Appendix C to Ind AS 12"

Other expenses increased as compared to previous years as the freight charges increased, increased publicity expenses with brand product campaigns, expenses incurred on new product introduction campaigns, motor show etc., warranty period being increased for selected products from four to six years, assets written off. On the other side, works operation and related other expenses decreased a bit in the year in FY 18 & FY 19 as compared to FY 17 without affecting the total other expenses and leading to an overall increase in other expenses.

4.4 Selected ratios of financial analysis

Calculation of the ratios mentioned in the theoretical background include Return on Equity and Cash ratio. In years 2017 and 2018 the company had a loss

4.4.1 Return on equity

Evaluation: ROE optimum varies for different industries so it is not possible to have a general ROE for all the companies but to compare the results to a ROE for a specific industry. For auto industry general ROE is 14-17% (S&P 500).0

Table no. 13 showing the calculation of Return on Equity ratio

	2019	2018	2017
Net income	2602	-991.63	-2384.51
Shareholder's equity	22162.52	20170.98	20809.15
ROE	11.74%	can't be calculated	can't be calculated

Source: own processing from the data provided in the annual report FY 2017-19

4.4.2 Cash ratio

Evaluation

In the years 2017-2019, we can see that Tata motors has the cash ratio less than 1 which means there are more current liabilities than cash and cash equivalents. It shows the existence of insufficient cash-on-hand available to pay off short-term debts. This may not be bad news if the company has conditions that skew its balance sheets, such as lengthier-than-normal credit terms with its suppliers, efficiently-managed inventory, and very little credit extended to its customers. It can also imply that the company is not afraid of the future profits and is not accumulating cash to pay dividends and rather is investing in other profitable options or using the cash for expansion.

Table no. 14 showing the calculation of Cash ratio

	2019	2018	2017
Cash and cash equivalents (+Bank)	1306.61	795.42	286.06
Current liabilities	22940.81	24218.95	21647.8
Cash ratio	0.057	0.033	0.013

Source: Annual report of Tata Motors FY 2017-2019

5. Results and Discussion

Assessment of the company's financial position and performance is based on the practical part of the thesis and on the annual reports of the company, including information from the annual report 2020.

5.1 Assessment of the financial position of the company

The financial position of the company was analysed by vertical and horizontal analysis of the Balance sheet for 3 consequent years (2017-2019). The vertical analysis (Table 3) showed that the most significant assets are Property, plants and equipment (around 30%), Investments in subsidiaries and joint ventures (around 25%), Inventories (9%) and Trade receivables (5%). Non-current assets are around 70% of total assets. The most significant items in the Equity and liabilities part are Other capital (around 35%) and borrowings, both long-term (23%) and short-term (around 15%).

The equity part of the balance sheet includes only two items: the share capital and other capital (other equity). Other capital also includes retained earnings (or accumulated losses) which is the profit/loss for previous and current year together. The company had losses in the years 2017 and 2018, only for the year 2019 there is a profit.

The horizontal analysis showed a decrease in short-term borrowings during the monitored years and nearly no change in long-term borrowings, but trade payables were significantly increasing. However, the annual report at 31 March 2020 shows a high increase of short-term borrowings (and decrease of trade payables) and also an increase in long-term borrowings.

Financial problems may be related to the increased borrowings as the repayments and interest payments affect a cash-flow of the company.

5.2 Assessment of the financial performance of the company

The financial performance of the company was analysed by vertical and horizontal analysis of the Income statement (Profit and Loss account) for 3 consequent years (2017-2019). The overall profit has changed over the years. While in 2016 the financial result was profit, in the monitored years 2017 and 2018 there was a loss and in 2019 there was a profit again.

Revenues from operations include sale of products, sale of services, finance revenues and other operating revenues. The most significant revenue is from the sale of products which has increased during

the monitored years. However, according to the annual report at March 31, 2020 the Revenues has dropped significantly.

The most significant expenses in the company as shown in Table 8 are the cost of material consumption (53 – 63%), and other expenses (around 15 %) which include processing charges, freight, transportation and port charges, warranty expenses, information technology and publicity expenses. Other less significant expenses were Employee benefit expenses (7%) and depreciation and amortization (5%). The most significant changes shown in Table 11 are related to cost of materials consumed and purchase of products for sale (merchandise). Foreign exchange gains and losses and financial costs were also changing but it is not a significant amount.

Financial problems can be mostly related to the freight charges increased, increased publicity expenses with brand product campaigns, expenses incurred on new product introduction campaigns, motor show and warranty period being increased for selected products from four to six years. Also, increase of interest rates affect the financial costs and thus the profit.

5.3 The most significant factors influencing the profit

Factors influencing the profit can be internal and/or external. It is important to take into account the industry specifics as well as the main factors affecting the profit of the company are related to the overall automotive industry challenges.

The global automotive industry is highly competitive in areas like product quality and features, innovation and the development time for introduction of new products, cost control, pricing, reliability, safety, fuel economy, environmental impact, customer service and financing terms.

The most significant factors influencing the profit are related to the external factors of the company's international business like difficulties in staffing and managing overseas operations, delays in contract enforcement and the collection of receivables under the legal systems of foreign countries, the risk of non-tariff barriers, regulatory and legal requirements affecting the company's ability to enter new markets through joint ventures with local entities, difficulties in obtaining regulatory approvals, environmental permits and other similar types of governmental consents, obtaining the necessary facility sites or marketing outlets or securing essential local financing, export and import restrictions, different tax regimes or foreign investment restrictions.

The automotive industry could be affected by the interest rates and inflation, reduced availability of financing for vehicles at competitive rates, implementation of environmental and tax policies and increase in freight rates and fuel prices.

Tata Motors rely on the United Kingdom, Chinese, North American, Indian and continental European markets from which the company have its main revenues.

Revenues from sales of electric vehicles are also depending on the consumers' perception of these vehicles due to the lack of fully developed charging infrastructure, long charging times or increased costs of purchase and fueling.

Designing, manufacturing and selling vehicles is a long-term task and requires investments in intangible assets such as research and development, product design and engineering technology.

4.5 Possible financial problem areas

- Borrowings – the risk is related to the increase of the interest rates and the ability to pay back
- Foreign currency exchange rates – the risk is related to the changes in currency rates which the company has no control over
- Sales decline due to public perception about the automobile industry and environment – the risk is associated with the public perception of diesel-powered vehicles (emissions and tax increases on diesel vehicles) mainly in Europe and also to the implementation of environmental regulations
- Sales decline due to political and economic influence – the most important subsidiary of Tata Motors is Jaguar Land Rover based in UK, the Brexit is influencing the possible financing sources in Europe

6. Conclusion

The aim of this bachelor thesis was to assess the financial position and performance of a chosen Indian company by analyzing the company's financial statements with focus on the representation and changes of the reported assets, liabilities, expenses and revenues for a chosen period and to identify the potential financial problems and the most significant factors influencing the profit.

The financial position of the company can be assessed by analyzing the company's balance sheet, the financial performance by analyzing the company's income statement. The balance sheet reports the company's assets, equity and liabilities at a given date. The income statement (statement of profit or loss) reports the company's expenses, revenues and profit for a given period of time. Financial analysis is useful to assess the overall health of the company. Country and industry specifics are also important.

The thesis deals with an important Indian automobile company, Tata Motors. Tata Motors is a company established in 1945, in Mumbai, India. The company is manufacturing over 30 types of commercial vehicles and over 15 types of military vehicles. The published annual reports of the company were used for the practical part of the thesis. The thesis analyzed the financial years of 2016/17-2018/19. The company had a changing profit or loss over the years, in 2016 the financial result was profit, in the monitored years 2017 and 2018 there was a loss and in 2019 there was a profit again. Financial result for 2020 is a loss.

The analysis of the financial position of the company showed that the most significant items are the long-term assets, like Property, plants and equipment and Investments in subsidiaries and joint ventures. Non-current assets are around 70% of total assets. The most significant items in the Equity and liabilities part are Other capital and borrowings. Other capital was influenced by the retained earnings of the company, which was affected by the profit or loss of the current years. Borrowings were decreasing over the monitored years, but in 2020 increased again.

The analysis of the financial performance of the company showed that the main revenue of the company is from the sales of products which was increasing during the monitored years but dropped significantly in 2020. The most significant expenses are the costs of material consumption and other expenses including the processing charges, freight, transportation and port charges, warranty expenses, information technology and publicity expenses.

The most significant factors influencing the profit are the same factors which influence the automobile industry all over the world. In this very competitive industry, areas like product quality and features, innovation and the development time for introduction of new products, cost control, pricing, reliability, safety, fuel economy, environmental impact, customer service and financing terms are affecting the profit. Public perception of the automobile industry due to environmental issues also affects the sales and thus the profit.

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8. Appendix

Appendix 1 Financial statement of Tata Motors

Picture 3. showing the Standalone balance sheet of Tata Motors as on March 31st, 2019

Particulars	₹ in crores	
	As at March 31, 2019	As at March 31, 2018
I. ASSETS		
(1) NON-CURRENT ASSETS		
(a) Property, plant and equipment	16,353.39	16,030.88
(b) Capital work-in-progress	2,018.21	1,357.89
(c) Other intangible assets	3,731.44	3,198.53
(d) Intangible assets under development	4,119.15	3,811.03
(e) Investments in subsidiaries, joint arrangements and associates	16,427.86	15,607.64
(f) Financial assets		
(i) Investments	663.38	310.19
(ii) Loans and advances	142.51	143.36
(iii) Other financial assets	1,015.44	784.46
(g) Non-current tax assets (net)	660.20	650.46
(h) Other non-current assets	1,648.04	1,419.52
	46,779.62	43,293.96
(2) CURRENT ASSETS		
(a) Inventories	4,022.41	4,925.47
(b) Investments in subsidiaries and associates (held-for-sale)	257.81	681.91
(c) Financial assets		
(i) Investments	1,102.17	1,820.87
(ii) Trade receivables	2,940.49	2,960.93
(iii) Cash and cash equivalents	416.72	499.65
(iv) Bank balances other than (iii) above	763.64	180.38
(v) Loans and advances	161.61	136.37
(vi) Other financial assets	1,112.36	525.36
(d) Current tax assets (net)	-	73.88
(e) Assets classified as held-for-sale	162.24	223.33
(f) Other current assets	774.25	1,172.45
	11,713.70	13,200.60
TOTAL ASSETS	58,493.32	56,494.56
II. EQUITY AND LIABILITIES		
EQUITY		
(a) Equity share capital	679.22	679.22
(b) Other equity	20,879.27	19,004.01
	21,558.49	19,683.23
LIABILITIES		
(1) NON-CURRENT LIABILITIES		
(a) Financial liabilities		
(i) Borrowings	13,330.00	12,517.97
(ii) Other financial liabilities	180.80	211.28
(b) Provisions	1,251.44	983.55
(c) Other non-current liabilities	142.96	97.90
	14,905.20	13,810.70
(2) CURRENT LIABILITIES		
(a) Financial liabilities		
(i) Borrowings	3,529.50	2,880.34
(ii) Trade payables		
(a) Total outstanding dues of micro and small enterprises	123.09	123.27
(b) Total outstanding dues of creditors other than micro and small enterprises	9,780.42	8,543.86
(iii) Acceptances	3,093.28	4,814.58
(iv) Other financial liabilities	2,057.07	3,936.77
(b) Provisions	1,149.31	852.93
(c) Current tax liabilities (net)	55.10	14.76
(d) Other current liabilities	2,241.86	1,834.12
	22,029.63	23,000.63
TOTAL EQUITY AND LIABILITIES	58,493.32	56,494.56

Source: Annual report of Tata Motors FY 2019

Picture 4. showing the Standalone Statement of Profit & Loss of Tata Motors as on March 31st, 2019

Particulars	(₹ in crores)	
	Year ended March 31, 2019	Year ended March 31, 2018
Revenue from operations		
Revenue	67,209.22	56,081.36
Other operating revenue	401.85	451.84
I. Total revenue from operations	67,611.07	56,533.20
II. Other Income	2,381.45	2,283.40
III. Total Income (I+II)	69,992.52	58,816.60
IV. Expenses		
(a) Cost of materials consumed	41,843.32	35,011.52
(b) Purchases of products for sale	8,181.65	5,724.01
(c) Changes in inventories of finished goods, work-in-progress and products for sale	118.52	845.67
(d) Excise duty	-	733.95
(e) Employee benefits expense	4,054.14	3,767.86
(f) Finance costs	1,743.64	1,686.59
(g) Foreign exchange loss (net)	180.88	10.99
(h) Depreciation and amortisation expense	2,758.58	2,851.27
(i) Product development/Engineering expenses	571.32	474.55
(j) Other expenses	9,302.16	8,907.44
(k) Amount transferred to capital and other accounts	(1,093.54)	(855.08)
Total Expenses (IV)	67,660.67	59,158.77
V. Profit/(loss) before exceptional items and tax (III-IV)	2,331.85	(342.17)
VI. Exceptional items		
(a) Employee separation cost	4.23	3.68
(b) Write off/provision of capital work-in-progress and intangibles under development (net)	180.66	962.98
(c) Provision for impairment of investments in subsidiary companies	241.86	-
(d) Profit on sale of investment in a subsidiary company	(332.95)	-
(e) Others	109.27	-
VII. Profit/(loss) before tax (V-VI)	2,128.78	(1,308.83)
VIII. Tax expense (net)		
(a) Current tax (including Minimum Alternate Tax)	190.96	6.00
(b) Deferred tax	33.88	(48.64)
Total tax expense	224.84	(42.64)
IX. Profit/(loss) for the year from continuing operations (VII-VIII)	1,903.94	(1,266.19)
X. Other comprehensive income/(loss):		
(A) (i) Items that will not be reclassified to profit and loss:		
(a) Remeasurement gains and (losses) on defined benefit obligations (net)	(66.64)	16.71
(b) Quoted equity instruments through other comprehensive income	55.44	44.04
(ii) Income tax relating to items that will not be reclassified to profit and loss	17.95	(5.78)
(B) (i) Items that will be reclassified to profit and loss - gains and (losses) in cash flow hedges	(45.72)	(19.56)
(ii) Income tax relating to items that will be reclassified to profit and loss	15.92	6.77
Total other comprehensive income/(loss), net of taxes	(23.05)	42.18
XI. Total comprehensive income/(loss) for the year (IX+X)	1,880.89	(1,224.01)
XII. Earnings per equity share (EPS)		
(a) Ordinary shares:		
(i) Basic	₹ 5.59	(3.73)
(ii) Diluted	₹ 5.59	(3.73)
(b) 'A' Ordinary shares:		
(i) Basic	₹ 5.69	(3.73)
(ii) Diluted	₹ 5.69	(3.73)

Source: Annual report of Tata Motors FY 2019

Picture 5 showing the Consolidated balance sheet of Tata Motors as on March 31st, 2019

		(₹ in crores)		
		Notes	As at March 31, 2019	As at March 31, 2018
I. ASSETS				
(1) NON-CURRENT ASSETS				
(a)	Property, plant and equipment	3	72,619.86	73,867.84
(b)	Capital work-in-progress		8,518.17	18,171.04
(c)	Goodwill	5	747.87	116.45
(d)	Other intangible assets	6 (a)	37,866.74	47,429.57
(e)	Intangible assets under development	6 (b)	23,345.67	23,890.56
(f)	Investment in equity accounted investees	8	4,743.38	4,887.89
(g) Financial assets:				
(i)	Other investments	9	1,497.51	763.76
(ii)	Finance receivables	17	22,073.17	15,479.53
(iii)	Loans and advances	11	407.42	495.41
(iv)	Other financial assets	12	2,809.18	4,563.87
(h)	Deferred tax assets (net)	21	5,151.11	4,158.70
(i)	Non-current tax assets (net)		1,024.56	899.90
(j)	Other non-current assets	19	2,938.73	2,681.25
			183,763.37	195,377.67
(2) CURRENT ASSETS				
(a)	Inventories	13	39,013.73	42,137.63
(b)	Investment in equity accounted investees (held for sale)	8 (c)	591.50	497.35
(c) Financial assets:				
(i)	Other investments	10	8,938.33	14,663.75
(ii)	Trade receivables	14	18,996.17	19,893.30
(iii)	Cash and cash equivalents	15	21,559.80	14,716.75
(iv)	Bank balances other than (iii) above	16	11,089.02	19,897.16
(v)	Finance receivables	17	11,551.52	8,401.65
(vi)	Loans and advances	11	1,268.70	1,451.14
(vii)	Other financial assets	12	3,213.56	3,857.64
(d)	Current tax assets (net)		184.37	208.91
(e)	Assets classified as held-for-sale	46 (b)	162.24	2,585.19
(f)	Other current assets	20	6,862.22	7,662.37
			123,431.16	155,972.84
TOTAL ASSETS			307,194.53	351,350.51
II. EQUITY AND LIABILITIES				
EQUITY				
(a)	Equity share capital	22	679.22	679.22
(b)	Other equity *	23	59,500.34	94,748.69
Equity attributable to owners of Tata Motors Ltd			60,179.56	95,427.91
Non-controlling interests			523.06	525.06
			60,702.62	95,952.97
LIABILITIES				
(1) NON-CURRENT LIABILITIES				
(a) Financial liabilities:				
(i)	Borrowings	25	70,973.67	61,199.50
(ii)	Other financial liabilities	27	2,792.71	2,739.14
(b) Provisions				
(c)	Deferred tax liabilities (net)	29	11,854.85	10,948.44
(d)	Other non-current liabilities	21	1,491.04	6,125.80
		30	13,922.21	11,165.19
			101,034.48	92,178.07
(2) CURRENT LIABILITIES				
(a) Financial liabilities:				
(i)	Borrowings	26	20,150.26	16,794.85
(ii)	Trade payables			
(a)	Total outstanding dues of micro and small enterprises		130.69	144.24
(b)	Total outstanding dues of creditors other than micro and small enterprises		68,382.84	71,894.17
(iii)	Acceptances		3,177.14	4,901.42
(iv)	Other financial liabilities	28	32,855.65	31,267.49
(b) Provisions				
(c)	Current tax liabilities (net)	29	10,196.75	7,953.50
(d)	Liabilities directly associated with Assets held-for-sale	46 (b)	1,017.64	1,559.07
(e)	Other current liabilities	31	9,546.46	7,634.55
			145,457.43	143,219.47
TOTAL EQUITY AND LIABILITIES			307,194.53	351,350.51

* Includes other comprehensive income relating to assets held for sale amounting to ₹ (6.64) crores as at March 31, 2018.
See accompanying notes to consolidated financial statements

In terms of our report attached
For B S R & Co. LLP
Chartered Accountants
Firm's Registration No. 101248W/W-100022

YEZDI NAGPOREWALLA
Partner
Membership No. 049265

Mumbai, May 20, 2019

For and on behalf of the Board
N CHANDRASEKARAN [DIN: 00121863] Chairman
N MUNJEE [DIN: 0010180]
F S NAYAR [DIN: 00003633]
V K JAIRATH [DIN: 00391684]
O P BHATT [DIN: 00548091]
R SPETH [DIN: 03318908]
Directors

GUENTER BUTSCHEK [DIN: 07427375] CEO and Managing Director
S B BORWANKAR [DIN: 01793948] ED and Chief Operating Officer
P B BALAJI Group Chief Financial Officer
H K SETHNA [FCS: 3507] Company Secretary

Mumbai, May 20, 2019

Source: Annual report of Tata Motors FY 2019

Picture 6 showing the Consolidated Statement of Profit & Loss of Tata Motors as on March 31st, 2019

	Notes	Year ended March 31, 2019	Year ended March 31, 2018
(₹ in crores)			
I. Revenue from operations	32		
(a) Revenue		299,190.59	289,386.25
(b) Other Operating Revenues		2,747.81	2,954.39
Total revenue from operations		301,938.40	292,340.64
II. Other income (includes Government grants)	33	2,965.31	3,957.59
III. Total income (I+II)		304,903.71	296,298.23
IV. Expenses:			
(a) Cost of materials consumed		182,254.45	173,371.19
(i) Cost of materials consumed		(1,245.37)	(1,378.60)
(ii) Basis adjustment on hedge accounted derivatives		13,258.83	15,903.99
(b) Purchase of products for sale		2,053.28	(2,046.58)
(c) Changes in inventories of finished goods, work-in-progress and products for sale		-	790.16
(d) Excise duty	34	33,243.87	30,300.09
(e) Employee benefits expense	35	5,758.60	4,681.79
(f) Finance costs		905.91	(1,185.28)
(g) Foreign exchange (gain)/loss (net)		23,590.63	21,553.59
(h) Depreciation and amortisation expense		4,224.57	3,531.87
(i) Product development/Engineering expenses		62,238.12	60,184.21
(j) Other expenses	36	(19,659.59)	(18,588.09)
(k) Amount transferred to capital and other account		306,623.30	287,118.34
Total Expenses (IV)		(1,719.59)	9,179.89
V. Profit before exceptional items and tax (III-IV)			
VI. Exceptional items:			
(a) Defined benefit pension plan amendment past service cost/(credit)	45 (d)	147.93	(3,609.01)
(b) Employee separation cost	46 (f)	1,371.45	3.68
(c) Provision for /impairment of capital work-in-progress and intangibles under development (net)	46 (c)	180.97	1,641.38
(d) Provision for costs of closure of operation of a subsidiary company	46 (e)	381.01	-
(e) Provision for impairment in Jaguar Land Rover	7	27,837.91	-
(f) Profit on sale of investment in a subsidiary company	46 (g)	(376.98)	-
(g) Others	46 (i)	109.27	(11.19)
VII. Profit/(Loss) before tax (V-VI)		(31,371.15)	11,155.03
VIII. Tax expense/(credit) (net):	21		
(a) Current tax (including Minimum Alternate Tax)		2,225.23	3,303.46
(b) Deferred tax		(4,662.68)	1,038.47
Total tax expense/(credit)		(2,437.45)	4,341.93
IX. Profit/(loss) for the year from continuing operations (VII-VIII)		(28,933.70)	6,813.10
X. Share of profit of joint ventures and associates (net)	8	209.50	2,278.26
XI. Profit/(loss) for the year (IX+X)		(28,724.20)	9,091.36
Attributable to:			
(a) Shareholders of the Company		(28,826.23)	8,988.91
(b) Non-controlling interests		102.03	102.45
XII. Other comprehensive income/(loss):			
(A) (i) Items that will not be reclassified to profit or loss:			
(a) Remeasurement gains and (losses) on defined benefit obligations (net)		(2,561.26)	4,676.51
(b) Equity instruments at fair value through other comprehensive income (net)		35.60	42.86
(c) Share of other comprehensive income in equity accounted investees (net)		11.15	(7.16)
(d) Gains and (losses) in cash flow hedges of forecast inventory purchases		(1,746.24)	1,277.74
(ii) Income tax expense/(credit) relating to items that will not be reclassified to profit or loss		697.41	(991.02)
(B) (i) Items that will be reclassified to profit or loss:			
(a) Exchange differences in translating the financial statements of foreign operations		(2,010.22)	9,518.15
(b) Gains and (losses) in cash flow hedges		52.82	18,069.71
(c) Share of other comprehensive income in equity accounted investees (net)		(58.61)	429.41
(ii) Income tax expense/(credit) relating to items that will be reclassified to profit or loss		3.58	(3,403.69)
Total other comprehensive income/(loss) for the period (net of tax)		(5,575.77)	29,562.51
Attributable to:			
(a) Shareholders of the Company		(5,575.50)	29,535.61
(b) Non-controlling interests		(0.27)	26.90
XIII. Total comprehensive income/(loss) for the period (net of tax) (XI+XII)		(34,299.97)	38,653.87
Attributable to:			
(a) Shareholders of the Company		(34,401.73)	38,524.52
(b) Non-controlling interests		101.76	129.35
XIV. Earnings per equity share (EPS)	44		
(a) Ordinary shares (face value of ₹ each):			
(i) Basic EPS	₹	(84.89)	26.46
(ii) Diluted EPS	₹	(84.89)	26.45
(b) * Ordinary shares (face value of ₹ each):			
(i) Basic EPS	₹	(84.89)	26.26
(ii) Diluted EPS	₹	(84.89)	26.55

See accompanying notes to consolidated financial statements

<p>in terms of our report attached For B S R & Co. LLP Chartered Accountants Firm's Registration No: 101248W/W-100022</p> <p>YEZDI NAGPOREWALLA Partner Membership No. 049265</p> <p>Mumbai, May 20, 2019</p>	<p>N CHANDRASEKARAN [DIN: 00121863] Chairman</p>	<p>For and on behalf of the board N MUNJEE [DIN: 00010180] F S NAYAR [DIN: 00003633] V K JAIRATH [DIN: 00391684] O P BHATT [DIN: 00548091] R SPETH [DIN: 03318908]</p> <p>Directors</p>	<p>GUENTER BUTSCHEK [DIN: 07427375] CEO and Managing Director</p> <p>S B BORWANKAR [DIN: 01793948] ED and Chief Operating Officer</p> <p>P B BALAJI Group Chief Financial Officer</p> <p>H K SETHNA [FCS: 3507] Company Secretary</p> <p>Mumbai, May 20, 2019</p>
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Source: Annual report of Tata Motors FY 2019

Appendix 2 – Tata Motors' products

Picture 7 showing Tata motors product in domestic, commercial and defence sector



Source: <https://www.tatamotors.com/>

Appendix 3 – Accounting standards in India

The ICAI has issued following accounting standards as of 1 July 2019,

- AS 1 Disclosure of Accounting Policies
- AS 2 Valuation of Inventories
- AS 3 Cash Flow Statements
- AS 4 Contingencies and Events Occurring after the Balance Sheet Date
- AS 5 Net Profit or Loss for the Period, Prior Period items and Changes in Accounting Policies
- AS 6 Depreciation Accounting
- AS 7 Construction Contracts
- AS 9 Revenue Recognition
- AS 10 Accounting for Fixed Assets
- AS 11 The Effects of Changes in Foreign Exchange Rates
- AS 12 Accounting for Government Grants
- AS 13 Accounting for Investments
- AS 14 Accounting for Amalgamations
- AS 15 Accounting for Retirement Benefits in the Financial Statements of Employers (recently revised and titled as 'Employee Benefits')
- AS 16 Borrowing Costs
- AS 17 Segment Reporting
- AS 18 Related Party Disclosures

- AS 19 Leases
- AS 20 Earnings Per Share
- AS 21 Consolidated Financial Statements
- AS 22 Accounting for Taxes on Income
- AS 23 Accounting for Investments in associates in Consolidated Financial Statements
- AS 24 Discontinuing Operations
- AS 25 Interim Financial Reporting
- AS 26 Intangible Assets
- AS 27 Financial Reporting of Interests Joint Ventures
- AS 28 Impairment of Assets
- AS 29 Provisions, Contingent Liabilities and Contingent Asset

Note: AS 8 Accounting for Research and Development has been withdrawn by ICAI.

Appendix 4 **Global exporters**

Table12. Top global exporters in automotive industry

1	Germany	US \$ 154.7 Billion	9	Belgium	US \$ 34.1 Billion
2	Japan	US \$ 99.1 Billion	10	France	US \$ 25.2 Billion
3	United States	US \$ 51.4 Billion	11	Czech Republic	US \$ 22.8 Billion
4	Mexico	US \$ 49.4 Billion	12	Slovakia	US \$ 22 Billion
5	United Kingdom	US \$ 42 Billion	13	Italy	US \$ 16.9 Billion
6	Canada	US \$ 41 Billion	14	Turkey	US \$ 12.4 Billion
7	South Korea	US \$ 38.2 Billion	15	Sweden	US \$ 11.6 Billion
8	Spain	US \$ 35.5 Billion			

Source: own processing from the data available on [10]