

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economic Theories**



**Diploma Thesis**

**Financial Analysis of Multinational Company, Škoda  
Auto**

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# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

## DIPLOMA THESIS ASSIGNMENT

Bc. Rimpal Rajeshkumar Soni

Economics Policy  
and  
Administration  
Business  
Administration

Thesis title

**Financial Analysis of the multinational company Škoda Auto**

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### Objectives of thesis

The objective of the thesis is to evaluate the financial situation of the chosen company with ratio analysis.

The objective of the analysis includes a comparison of the ratios by using the balance sheet, income statement, and cash flow statement of Škoda Auto. Furthermore, the aim of the thesis is to provide recommendations for improvement based upon the results.

### Methodology

The methodology of the thesis consists of the analysis, synthesis, and compilation of the relevant literature, internal data of the company such as balance sheet, income statement, cash flow statement of the company and other secondary sources provided by Factiva and Bloomberg. Standard mathematical and statistical methods will then be processed on the results of the financial data. This will allow to formulate recommendations for future development.

## The proposed extent of the thesis

60-80

## Keywords

Financial performance, Financial Statements, Ratio Analysis, Financial Condition, Skoda, Automobile Company, Profitability, Efficiency, Stability

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## Recommended information sources

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## **Declaration**

I declare that I have worked on my diploma thesis titled "Financial Analysis of Multinational Company, Škoda Auto" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 30/11/2020

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The biggest and most powerful source came from the university library books and other resources, which allowed me to cite words, problems, approaches, and case studies that were most applicable to the subject being addressed.

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Thank you everyone for your extended support and guidance.

# Financial Analysis of Multinational Company, Škoda Auto

## Abstract

This diploma thesis emphasizes on the financial analysis of the company Škoda Auto, commonly known as Škoda. Škoda Auto focuses on automobile manufacturing. The financial analysis could help understand company performance. The study is done for a long time-span to give a better idea of the context that could be utilized. This study is divided into two portions; the first portion of the thesis manifests the essential terms and study related to the financial analysis; it embarks with the study's objective and methodology and then the literature review, which explains the ratio analysis and financial analysis. Nevertheless, there is a brief elucidation about the worldwide Škoda Auto market and its comparison with other automobile companies as well in the literature review. The most essential part of the diploma thesis is the practical part, which concentrates on the analysis. The study includes the time-span of more than thirteen years, from 2007 to 2019, and it also tries to include the year 2020 as per availability of the data; so that some enlightenment on the global financial crisis, Euro-zone crisis and COVID-19 pandemic could be included. The analysis is primarily based on the reports of Škoda Auto in order to analyse the financials in a horizontal and vertical manner. Besides, essential data from reliable resources are taken wherever necessary.

**Keywords:** Financial Performance, Financial Statements, Ratio Analysis, Financial Condition, Skoda, Automobile Company, Profitability, Efficiency, Stability

# Finanční analýza nadnárodní společnosti, Škoda Auto

## Abstrakt

Tato diplomová práce klade důraz na finanční analýzu společnosti Škoda Auto, běžně známé jako Škoda. Škoda Auto se zaměřuje na automobilovou výrobu. Finanční analýza by mohla pomoci porozumět výkonnosti společnosti. Studie je prováděna po dlouhou dobu, aby poskytla lepší představu o kontextu, který by mohl být využit. Tato studie je rozdělena do dvou částí; první část práce ukazuje základní pojmy a studii související s finanční analýzou; pustí se do cíle a metodologie studie a poté do literární rešerše, která vysvětluje poměrovou analýzu a finanční analýzu. V celosvětovém trhu Škoda Auto a jeho srovnání s ostatními automobilovými společnostmi a také v literární rešerši je stručně objasněno. Nejdůležitější částí diplomové práce je praktická část, která se zaměřuje na analýzu. Studie zahrnuje časové období více než třináct let, od roku 2007 do roku 2019, a snaží se také zahrnout rok 2020 podle dostupnosti údajů; aby bylo možné zahrnout určité osvícení o světové finanční krizi, krizi v eurozóně a pandemii COVID-19. Analýza vychází především ze zpráv společnosti Škoda Auto, aby bylo možné analyzovat finanční prostředky horizontálním a vertikálním způsobem. Kromě toho jsou všude tam, kde je to nutné, shromažďovány základní údaje ze spolehlivých zdrojů.

**Klíčová slova:** Finanční výkonnost, finanční výkazy, analýza poměrů, finanční situace, Škoda, automobilová společnost, ziskovost, efektivita, stabilita

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## **List of Abbreviations**

EBIT- Earnings before Interest and Taxes

RoCE- Return on capital employed

CNG- Compressed Natural Gas

LPG- Liquefied natural gas

CoGS- cost of goods sold

CZK- Czech Crowns

# 1. Introduction

This diploma thesis is an analysis of the financial performance of the company “ŠKODA Auto,” which focuses on the auto sector of the company. The study is based on the standard method and procedure of analysis; for the financial details for the years from 2007 to the mid-2020. The purpose of the analysis is to help the management of the company evaluate its performance and determine the strategies for the prospective years.

The subject of the analysis is Škoda Auto, which is an automobile company. The company was established in 1895, headquarter is in Mladá Boleslav, Czech Republic and has manufactured and sold vehicles in over 102 countries; top market of the company includes China, Germany, Czech Republic, Great Britain, Poland, Russia, France, Turkey, Italy and Austria (Škoda Auto, 2020). The company manufactures Mini Cars, Small Cars, Medium Cars, Large Cars, Small SUVs, and Large SUVs; all comes under the segment of passenger vehicles (Statista Mobility Market Outlook, 2020).

The thesis is divided into two parts; the first part, the theoretical part, is mainly focused on the theoretical background of the financial analysis. In the thesis, there is an explanation with the help of financial analysis. Then it is followed by the primary financial statements, which are the balance sheet and income sheet. In the theoretical part, the types of ratios used, such as profitability ratio, liquidity ratio, activity ratio and gearing ratio, and the importance of each ratio. The worldwide Škoda Auto market and its contrast with other car firms is briefly accounted in the literature review.

The second part of the thesis is a practical part. In that part, the theoretical section is practically applied in that part to make analysis and draw conclusions. It starts off with a vertical and horizontal analysis of balance sheet and income sheet for the period from 2007 to 2019; nevertheless, some light has been thrown upon the year 2020 as per the data availability to notice influence of COVID-19. Moreover, influence of global financial crisis and eurozone debt crisis is also noticed briefly from the analysis. The data analysed were extracted from the annual reports of the company. In the later part of the thesis, there have been a ratio analysis performed in a detailed manner.

## **2. Objectives and Methodology**

The approach and purpose should be sound for any research. This chapter includes information on the objectives of this study and the method used for the analysis. Moreover, the chapter has several parts that cover the data collection research tool used, data collection approach used, statistical analysis software and method used, scope of the study, limitations, and significance of the study.

### **2.1 Objective**

This research is mainly concerned with the identification and assessment of financial health and the estimation of the role of Škoda Auto in the automotive industry.

To get an overall understanding of how a business is doing rather than only looking at a few outlined factors in isolation, it is crucial to take a look at financial ratios. In the automotive industry, the ratios mentioned in this study are relevant and provide a clear measure of how a business operates and its financial performance. To obtain a better understanding of a company, however, one must consider both its certain dynamics and other factors to assess its true financial health.

This financial analysis can be useful not only for the company Škoda Auto but also it can be helpful for investors to make decisions. Financial analysis is the method of reviewing companies, ventures, investments, and other activities relevant to finance to assess their performance and appropriateness; it is usually used to determine whether an enterprise is sufficiently stable, solvent, liquid or efficient to justify an investment of money (Barnes, 1987).

### **2.2 Methodology Employed**

As the objective explains, the thesis aims to evaluate the financial situation of the chosen company, that is Škoda Auto. It is calculated with help of ratio analysis, derived from the annual reports of the Škoda Auto company. It have been gathered, organised, and

compared the financials data of many years from the annual reports which are then used to find ratio analysis and other statistical conclusions so that impact of major environmental and economic factors can also be noticed, and final conclusions can be drawn.

The first fragment of the thesis, that is, literature review was made using the help of various reliable secondary research data, majorly based on journals, books and annual reports. It was evaluated with the main terms connected with the financial analysis and later on were explained with the different methods. There were briefly described major financial statements that are necessary for a proper financial analysis such as income statement and balance sheet. In the second fragment, the analytical part, these data points were used with the methods of financial analysis that were applied to concrete data from the annual reports.

### **2.3 Data Collection Tool Used**

In order to write the literature review, various data collection tools have been used to collect and organise secondary data for the study of this diploma thesis. Library resources and Google Scholar platform are the main tools used to collect the data for the first fragment of the study.

For the practical section, data collection was indeed tough; Annual reports of the last thirteen years of the Škoda Auto were studied, and financial data was collected from the reports to perform the financial analysis. The reports were taken from Škoda Auto's website. In order to some other necessary data, the Statista platform was utilised as well.

### **2.4 Data Collection Approach Used**

The secondary data regarding financial analysis and Škoda Auto market revenue global comparison was fetched, collected, studied, and organised in order to form a reliable and reliable literature review. The important financial data was collected from the annual reports, and then categorised and organised in a tabular form so that it can be exploited for analysis.

## **2.5 Statistical Examination Software and Method Used**

For statistical examination made using descriptive and exploratory data analysis (EDA) approaches, to calculate financial ratios, and illustrate and summarize trends and patterns of them, Microsoft Excel software is used because of its dynamic ways of representations and flexibility. The collected data was organised in the tabular form in the Excel, and financial ratio calculations were employed to get statistical results. Graphs were formed from the statistical observations and results to make it easy for the readers to interpret.

## **2.6 Scope of the Study**

This study is accomplished for the last thirteen years of financial data of the Škoda Auto, and also it tries to include the current situation as per the data availability. The financial analysis of automobiles that are other than the Škoda Auto company, is not included. However, other competitors' reports were studied to comprehend the Škoda Auto global position. The study does not include the financial data of the years before 2007.

## **2.7 Time period**

The company Škoda Auto has been profiled for the last thirteen financial year i.e. 2007-2019. And; also tries to include the economic influence due to COVID-19 in 2020 as per the data availability.

## **2.8 Limitations:**

Due to long timespan taken into account for this study, there was a problem of data availability for all the years taken together. Hence, in some segments, the graphs and tables, or trends and patterns were manifested as per the accessibility of the data. However, efforts to take the optimum data into the practical were at its utmost extent. Besides, the topic of this diploma thesis needs to analyze former reports of the company and other

secondary data; hence, primary data collection is not carried out as it is not useful for this study.

This study merely focuses on the financial analysis of the company Škoda Auto for a specific time period; it does not include the analysis of the company's position in global context by own research as it requires months of time and tremendous amount of data to analyse the financial situation of the global automobile companies.

## **2.9 Significance of the Study**

There are a lot of researches being undertaken to analyze the financial performance of the various automobile companies. However, a study that focuses on long time profile can be very useful for the long-term decisions of a company and stakeholders. Hence, the analysis of Škoda Auto, a very experienced and reputed firm, could be very helpful. This study also shows the forecast of the impact of COVID-19 to the revenue of the company “Škoda Auto”. In addition, it is a long-term profile analysis of the company “Škoda Auto”; Hence, influence of the “2008 Global Financial Crisis”, “2009 Eurozone Debt Crisis”, and “2015 China's Stock Market Crash” could also be noticed. Not only the management of the company, but its creditors and investors can also study this dissertation to make beneficial decisions.



### **3. Literature Review**

The primary goal of a company is to create wealth which is achieved by maximising the firms' value through optimum utilisation of its resources over time. It can be done by continuous accumulation of assets. For accumulation, a company needs resources and capital. For any investor to invest in the company requires a prerequisite of knowing the financial position and performance of the selected company to forecast the future of their investment (Wahlen and Wieland, 2011).

Company needs to collect and analyse its historical and financial statements to find out the valuation front. It also needs that the financial reporting is presenting a fair and right picture of its economic activities (Ingram and Albright, 2007). With the Internet available everywhere today vast amount of information is available to anybody as a means of communication. Any investor can print the annual reports to know the position of a company; financial statements and balance sheets are the source of data to analyse financial situation of any company.

Apart from this, data also gives an understanding of the positive and the negative aspects of a company, strength and weakness, the attributes of various investment it has made and whether to invest more or take back its investment. Financial statement analysis also states the management all the factors that can affect the company's future performance o that they take the necessary action immediately.

#### **3.1 Difference between financial analysis and financial reporting**

Primarily, it needs to be known the meaning of financial analysis. Financial analysis is different from financial reporting which is just the collection and presentation of financial information. Financial Analysis on the other hand is the analysis, selection, evaluation and interpretation of financial data and other pertinent information to know the financial condition of a company or an entity. It states the manner in which, a company is using its assets to get a return on them. It can be said that financial reporting conveys the current

and past information and financial analysis uses that to convey the future condition. It requires application of tools such as ratio analysis and quantitative analysis.

If it has to be traced that how did financial ratio analysis develop, it has to see the early origins of the technique. The practice has been seen as early as the 1900s to date. The first origin of ratio analysis was seen in the book elements in around 300 BC but the adoption of ratio analysis as a financial statement analysis tool has been relatively recent. The cause behind financial statement analysis is tracked down to last half of the 19<sup>th</sup> century where America drove towards industrial revolution as the management of the enterprises realised that a need for recording financial statement properly is necessary. Later on, the need of financial analysis was shifted from the management to words the creditor.

### **3.2 Stakeholders of financial statement Analysis**

A stakeholder is a person with an involvement in a product and the corporation will either influence or be influenced; a standard corporation 's key creditors are its owners, staff, customers and suppliers. Moreover, the new concept definition moves beyond the initial notion to incorporate external members including a society, government, or trade group (Friedman & Samantha, 2006). Financial statements and stockholders' reports are the source of data for the analysis. There are various parties which are involved in financial statement analysis. They are:

- Creditors – basically anyone who has lent any amount of money to the company, they are interested in how quickly they will be paid back.
- Investors – they can be current and future both usually they are invested in dividends which basically states the companies' ability to generate cash flow.
- Management – any person who is controlling the operations of the company will be interested in seeing whether it is as per plan.

- Regulators – companies like SEBI and SEC always see whether the company is conforming by the various accounting standards that has been set by these two companies and various other regulatory authorities.

There are various methods to assess and analyse the financial statements; one such analytical technique is called financial ratio analysis. It is the oldest method used to analyse company performance. It has been used over and over to analyse the financial position of a company and to know the results of their actions, so it can be called of planning and control tool.

### **3.3 The aim of the financial analysis**

There are plentiful literatures on the use of ratios in the financial analysis which have been used for both descriptive and analytical purposes. Many researchers have developed optimal set up, Altman (1968) used this nursery shoes to predict bankruptcy whereas Barnes (1987) use them to evaluate success.

Barnes (1987) established that ratios are the only industry norm that can be used to evaluate the company's financial performance. Almost hundred financial ratios have been identified which can predict the performance of a company. 100 financial ratios have been identified which can predict the performance of a company but Gombola and Ketz (1983) used factor analysis to narrow them down to the major ones that can be used.

Analysis of the mathematical essence of financial ratios was performed by Horrigan (1965); he measured a ton of average ratio taking into account the size of the form which makes having some average extremely difficult. Besides, he realized that not normally the financial ratios are distributed. He was one of the leading scholars to claim financial ratios are quite unreliable predictors of financial woes.

Drake (2010) defines the parameter of selection, evaluation, financial data interpretation along with other information to assist investment is the one based on financial analysis. It also identifies the strengths and weakness of financial decision making by establishing the relationship between the balance sheet items and the profit and loss account.

Financial analysis involves comparing the firm's performance with other firms in the same industry and evaluating trends in the firm's financial position over time, stated Brigham and Houston (2009). A major source of information is being audited financial statements of the company submitted to SEBI.

Brigham and Ehrhardt (2010) State that "financial ratios are designed to evaluate financial statement". Financial ratio can be described as a quantitative indicator of the firm's performance. If it has to be expressed more formally, it would be said that it is a fraction expressing the relationship between two items. It can also be expressed as fractions, decimals and percentages.

Now it is known that any number given in the financial statement need not necessarily be important to provide us any useful information, but it can only be used when compared with other numbers. (Tofeeq, 1997). Any ratio cannot predict the financial performance of a company, so it has to be probed the financial statements using number of ratios. This will give us a complete understanding of the financial statement and its portrayal of financial performance of the company.

One usually looks at two figures and compare them to assess a positive or negative trend in company's affair. Comparison is the major factor of providing an effective ratio analysis comparison can be done between same business but different years, or between companies in a specific sector or between two industries. They can be classified into five types namely liquidity ratio, leverage ratio, activity ratio, profitability ratio, debt ratio, investment ratio. As the name suggest each one has a specific purpose to determine the relationship between two items in the financial statement. The ratio is that a company uses to analyse its performance depends upon the purpose with which the analysis is carried out and also the activity that the company is engaged in (Tofeeq 1997). It also depends upon the objective of analysis and the specific questions that need to be addressed through that analysis, the perspective of the creditor, the investor and the management also has an impact on the analysis (Fraser and Ormiston (2004)

### **3.4 Ratio analysis and its types**

First of all, ratio analysis refers to the mathematical relationship between any two inter-related variables. A relationship is expressed between two different figures of the financial statement using ratio analysis. Ratio analysis is an art of establishing relationship between different components of financial statement. It aids in deriving a meaningful understanding of profitability, liquidity, solvency, gearing ratio, interest cover ratio and efficiency of a company through return on capital employed and financial efficiency. Seen the literature and various studies carried out using financial ratios most researchers have identified majorly eight ratios (Ross et al.,2007).

#### **Liquidity ratio**

IFRS (2006) states that liquidity refers to whatever cash is available for the near future taking into consideration the obligations corresponding to that time period. The risk involved is that the organisation would not be able to make its payment to the creditors there by increasing its liabilities.

Liquidity ratio are financial ratios which measures an ability of a company to pay the short-term financial obligations that is current liabilities using its current assets. Quick ratios, current ratios and cash conversion cycle are considered to be the most common liquidity ratios.

While analysing the financial position of a company, such as the short-run and the long-run. Short term is considered to be for less than a year and long run is considered to be more than 12 months. Liquidity and solvency are considered for short-run and long-run respectively. The liquidity ratios measures relationships between current assets and current liabilities. Current assets are expected to generate cash flow within one operating cycle to a year. Current liabilities are obligations which has to be paid off within a year or an operating cycle. The measure is used to determine a debtor's ability to pay debt obligations and its margin of safety. It determines a company's ability to cover short-term obligations such as cash flows, while solvency ratios are concerned with a long-term ability to pay

ongoing debts (Bogdan, Bareša, & Ivanović, 2012). Common liquidity ratio such as quick ratio and current ratio. Major ratios are:

- Current ratio – The balance sheet depicts the current assets and current liabilities separately from non-current assets and non-current liabilities. The most common type of liquidity ratio is current ratio. It measures the ease with which the company will pay the short-term liabilities of the company. When all the current assets were turned into cash. (Bogdan, Bareša, & Ivanović, 2012)

Current assets – It include prepayments, inventories, accounts receivable, short-term marketable cash and securities, typically current liabilities include accounts payable, short-term notes payable, taxes payable, unearned revenue and accrued expenses (Bogdan, Bareša, & Ivanović, 2012). These ratios measure the amount of liquidity available to pay for short term liabilities. It is also known as working capital ratio. A ratio greater than 1 shows that the company expects to receive more cash inflows from liquidation of current assets compared to the expectation of a company to pay on account of current liabilities in the next one year.

- Quick ratio- It is also called as acid test; the ratio measures the ability of a company to pay off its current liabilities (Bogdan, Bareša, & Ivanović, 2012). The difference with the current ratio is it measures only the quick assets. The assets that can be transferred into liquid within 90 days are known as quick assets. As inventories are the least liquid assets, inventories are deducted within the total current assets.

Quick ratio can be considered as those current assets that can be liquidated with current liabilities. Cash, short-term marketable securities, and accounts receivables are known as quick assets. It is the same as the current ratio but does not include quick assets such as inventory.

Table 1: Liquidity ratios and calculations

<b>Liquidity ratio</b>	<b>Formula</b>
Current ratio	Current Assets/Current Liabilities
Quick ratio	(Cash + Short-term Marketable Securities + Receivables)/Current Liabilities

Source: Tracy, 2012

### **Activity ratio**

It depicts the promptness of the company to convert its sales into cash. In other words, one can also know how a company is managing its assets. The amount of assets that the investment made by a company in a particular type of assets. The most common activity ratio includes the inventory ratio and the average collection period (Monea, Monea, & Orboi, 2010); major ratios are:

- Total assets turnover ratio: This ratio measures ability of the company to utilizing its assets. A high ratio represents efficient utilization of total assets in generating sales.
- Fixed assets turnover ratio measures the firm's efficiency in utilizing Fixed Assets. A high ratio represents proper utilization of Fixed Assets in generating sales.
- Currents assets turnover ratio measures the efficiency of the firms and a high ratio represents efficient utilisation of current assets in generating sales.
- Working capital turnover ratio: Measures an ability of a company to generate sales from a certain base of working capital. A high working capital turnover ratio represents efficient utilisation of working capital in generating sales.
  - Stock turnover ratio: This ratio measures the relationship between the cost of goods sold and inventory held by the business. The ratio also indicates the speed at which inventory and stock is consumed and sold. A high ratio represents that the stock is consumed, and a bad ratio represents that the stock remains in the warehouse for a longer than the ideal period.

- Debtor turnover ratio measures the collection and credit policies of the firm. The ratio measures the efficiency of the management in managing its accounts receivable. A low ratio presents a bad credit policy as compared to a good ratio.
- Creditors turnover ratio: measures to know the payment policy that is being offered by the vendors to the company. The ratio also reflects the ability of the management in its account payable. A bad ratio represents the ability of the management to finance its credit purchase and vice-a-versa.

Table 2 Activity ratios and calculations

<b>Activity ratio</b>	<b>Formulas</b>
Total Assets Turnover Ratio	(Sales or Cost of Goods Sold)/ Total Assets
Fixed Assets Turnover Ratio	(Sales or Cost of Goods Sold)/ Fixed Assets
Current Assets Turnover Ratio	(Sales or Cost of Goods Sold)/ Current Assets
Working Capital Turnover Ratio	(Sales or Cost of Goods Sold)/ Working Capital
<ul style="list-style-type: none"> <li>• Stock Turnover ratio</li> </ul>	Cost of Goods Sold/Average Inventory
<ul style="list-style-type: none"> <li>• Debtor Turnover ratio</li> </ul>	(Opening Debtor + Closing Debtor)/2
<ul style="list-style-type: none"> <li>• Creditors Turnover ratio</li> </ul>	(Opening Creditor + Closing Creditor)/2

Source: Tracy, 2012

### **Profitability ratio**

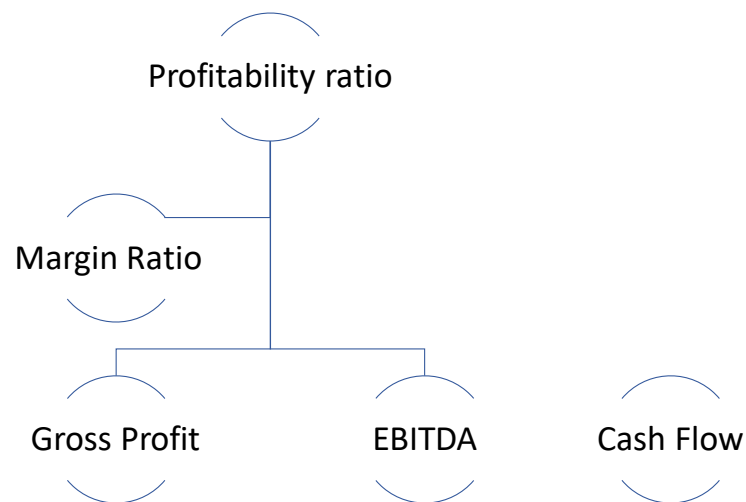
According to Lasher 2005, profitability ratio are financial metrics used by investors and analysts to measure and evaluate the ability of a company to generate profit (income) relative to revenue, balance sheets assets, operating costs, and shareholder's equity during



a financial year. The profitability ratio describes the appropriateness of the company to produce profit and value to shareholders.

Most companies usually need a higher ratio, as this means the business is performing well by generating revenues, profits, and cash flow. The ratios give a clearer picture when compared with similar businesses and previous period. The most commonly used ratios are of following types (Barnes, 1987):

Figure 1: Profitability ratios and calculations



Source: Tracy, 2012

- **Margin ratios:** the ratio represents the ability of a company to convert sales into profit at various degrees of measurement. The ratio is analysed through gross profit margin, operating profit margin, net profit margin, and cash flow margin.
- **Return Ratio** measures the company's ability to generate return to its stakeholders. Ratios can be measured return on assets, risk-adjusted return, return on invested capital, and return on capital employed.
- **Gross Profit Margin:** it measures the gross profit to sales revenue. It represents the earning of a business considering the amount that is needed to produce its goods and services. A high gross profit margin ratio reflects a higher efficiency of core operations. The ratio also states the ability of the company to cover operating expenses, fixed costs, depreciation while providing net earnings to the business.

- EBITDA margin stands for Earnings Before Interest, Taxes, Depreciation and Amortization. It measures the profitability of the company before considering the non-operating items such as interest and taxes, and the non-cash items such as depreciation and amortization. The EBITDA of a company helps in comparing with other companies. As this includes expenses that could be discretionary or volatile. The demerit of the ratio is that it is vary compared to net profit and actual cash flow generation. EBITDA is used widely in many valuation methods.
- Operating Profit Margin: measures the earnings as a percentage of sales before interest, expense and income, taxes are deducted. Companies that have high operating profit are marginally more equipped to pay for fixed costs and interests on obligation., that have better chances to survive an economic slowdown. These companies also have capability to offer lower prices than their competitors who have a lower profit margin.
- Net Profit Margin: it measures the company's net income and divides it into total revenue. The margin also provides the profitability of the company after all expenses, including interest and taxes, have been taken into account.

Table 3: Profitability ratios and calculations

<b>Profitability ratio</b>	<b>Formulas</b>
Margin ratios	$(\text{Operating Profit} / \text{Sales}) * 100$
Return Ratio:	$\text{Net Income} / \text{Shareholder's Equity}$
Gross Profit Margin:	$(\text{Gross Profit} / \text{Sales}) * 100$
EBITDA margin:	$\text{EBITDA} / \text{sales} * 100$
Net Profit Margin:	$(\text{Net Income} / \text{Sales}) * 100$

Source: Tracy, 2012

### **Solvency Ratio:**

The ratio depicts whether it is cash flow of a company is sufficient to meet short and long-term liabilities. Higher the company's solvency ratio, the lesser the probability of a company on its debt obligation. This particular ratio states us how much money in the

companies' accounts is borrowed and how effectively is it using the borrowed money (Lasher 2005). Majorly they are-

- Interest Cover: it measures the number of times a company can cover its current interest payments with the available cash flow. The ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by the interest that has to be paid during the same period.
- Debt-Equity ratio: it is calculated by dividing total liabilities of a company by equity of its shareholder. The ratio is used to evaluate the financial leverage of the company. These numbers are available on the balance sheet of a financial statement of the company.
- Long-term debt equity ratio is the leverage that a business has taken on a business. The ratio is derived by dividing the long-term debt of an entity by the aggregate amount of its common stock and preferred stock.

Table 4: Solvency ratios and calculations

<b>Solvency ratio</b>	<b>Formulas</b>
Interest ratio	EBIT / Interest Expenses
Debt equity ratio	Total Liability /Shareholder's Equity
Long-term debt equity ratio	Long-term debt / (Preferred stock + Common stock)

Source: Tracy, 2012

### **Efficiency ratio:**

The measure to analyse the efficiency of a company to use its assets and liabilities internally. It can calculate the turnover of receivables, the repayment of liabilities, the quantity and usage of equity, and the general use of inventory of machinery (Barnes, 1987); below is the list of various efficiency ratios:

- Inventory Turnover ratio: is measured by dividing the cost of goods sold for a period of average inventory for that period. Average inventory instead of ending inventory as merchandise of various companies fluctuates at a large scale throughout the year.
- Investments turnover ratio is measured by dividing the investments for a period of average inventory for that period instead of ending inventory as merchandise of various companies fluctuates at a large scale throughout the year.
- Assets Turnover ratio: it measures the efficiency of assets of a company. Companies with low profit margins tend to have high asset turnover, whereas companies with low profit margins have low asset turnover.

Table 5: Efficiency ratios and calculations

Efficiency ratio	Formulas
Inventory Turnover Ratio	COGS / Average Inventory
Investments Turnover Ratio	Sales / Total Net Worth
Asset Turnover Ratio	Sales/ Total Assets

Source: Tracy, 2012

### **Return on capital employed (RoCE):**

This is the most commonly used means of assessing the profitability of a business, it is often referred to as the primary efficiency ratio. It compares profit with the capital that has been invested in the business (Smith, 1990); both ‘profit’ and ‘capital employed’ can be calculated in several ways:

- Crucially, the RoCE result should be compared with the interest cost of borrowing finance – if it is less than this interest rate than any increase in borrowings will reduce returns to shareholders.
- The RoCE of a business can be raised by increasing the profitable, efficient use of the assets owned by the business, which were purchased by the capital employed.

- The method used for the calculation of capital employed is not universally agreed and this causes problems for comparisons between companies.
- RoCE is not related to the risks involved in the business. A high return may be the result of a successful undertaking with high risk rather than true business or managerial ‘efficiency.’

Figure 2: Evaluating strategies for increasing RoCE

Possible strategies to increase RoCE	Potential limitations
Increase operating profit without increasing capital employed, for example: <ul style="list-style-type: none"> <li>■ raise prices</li> <li>■ reduce variable costs per unit</li> <li>■ reduce overheads, such as delayering or reducing promotion costs.</li> </ul>	<ul style="list-style-type: none"> <li>■ demand could be price elastic</li> <li>■ cheaper materials could cut back on quality</li> <li>■ may not be effective in increasing profit in the short run and may have drawbacks, e.g. less promotion could reduce sales</li> </ul>
Reduce capital employed, for example: <ul style="list-style-type: none"> <li>■ sell assets that contribute nothing or little to sales/profit – use the capital raised to reduce debts</li> </ul>	<ul style="list-style-type: none"> <li>■ assets may be needed in the future, e.g. for expansion of business</li> </ul>

Source: Peter Simpsons, 2012

### Financial efficiency ratios

There are many efficiency or activity ratios that can be used to assess how efficiently the assets or resources of a business are being used by management; the two most frequently used are inventory turnover ratio and days’ sales in trade receivables ratio (Barnes, 1987).

In principle, the lower the amount of capital used in holding inventories, the better. Modern inventory-control theory focuses on minimising investment in inventories. This ratio records the number of times the inventory of a business is bought in and resold in a period of time. In general terms, the higher this ratio is, the lower the investment in inventories will be. If a business bought inventory just once each year, enough to see it through the entire year, its inventory turnover would be 1 and investment in inventories would be high. This ratio can be calculated in three other ways:

1. using average inventory holding – that is, the average value of inventories at the start of the year and at the end.
  2. using revenue, not cost of sales – this would give a very different result, but could be used if cost of sales data were not available
  3. using an alternative formula that measures the average number of days that money is tied up in inventories.
  4. The result is not a percentage, but the number of times inventory turns over in the time period – usually one year.
- The higher the number, the more efficient the managers are in selling inventory rapidly. Very efficient management – such as the use of the JIT system – will give a high inventory turnover ratio.
  - The ‘normal’ result for a business depends very much on the industry it operates in – for instance, a fresh-fish retailer would (hopefully) have a much higher inventory turnover ratio than a car dealer.
  - For service-sector firms, such as insurance companies, this ratio has little relevance, as they are not selling ‘products’ held in inventories.

### **3.5 Evaluating finances through ratio analysis**

Biever (1966) presented an evidence that certain financial ratios give significant signals of a business failure well before other ones. He noted that debt ratio was one of them.

Altmann (1966) identified five ratios that outperform all the other issues for laying out the situation of the financial performance of the company.

Financial ratios can also be called accounting ratios as they portray the relationship between items in the financial statement. They are very easy to calculate and easily available (NoBes and Parker, 2006).

Edminister (1972) took 19 financial ratios and five methods of ratio analysis. He employed multiple discriminant analysis to select a set of ratios and methods which would best be used to predict Financial performance of a company. The results found from this particular study emphasised the value of ratio analysis in assessment of the company's performance. With this study the author finally concludes that for an effective financial analysis it is needed to have at least three consecutive financial statements of the company.

Financial statement analysis has been a part of the analysis is required for equity valuation and analysis of the future with forecasting ratios viewed as the building blocks; the analysis of current financial statements was also done to identify current ratios as predictors of future issues for determining equity pay off (Penman, 2001). With a view of forecasting the time series behaviour of many of the ratio was also described and their steady state levels were also documented.

Maricica M. (2014) have identified financial ratios as good predictors of business failure. He says that they can accurately discriminate between failed and nine failed companies several years before their failure. He authored this paper with the aim to identify the predictive power of financial ratios for which he used to group of companies and predicted their profitability and financial position for two years.

Return on assets as the most determinant factor in explaining the market value the financial leverage and risk; they also said that the size of a firm has a significant effect on its market value (Asiri, Hameed, 2014). So small phones compared to large firms can give different signals and for their growth. They used financial ratios of profitability liquidity efficiency and debt.

Determining the firm's performance using a set of financial ratios is an interesting problem for any researcher (Delen, Aliuyar, 2012). They employed a two-step analysis to find out the ratio was that can accurately predict the firm's performance. By using underlying dimensions of financial ratios followed by predictive method potential relationship between the firm performance and financial ratios were established. The results show that earnings before tax and net profit margin are the two most important ratios.

Liang et al. (2016), established that financial ratios do have predictive power up to at least five years prior to bankruptcy. Effective bankruptcy prediction is important because financial institutions have to take lending decisions for which financial ratios are used. Dincer et al. (2011) did a performance evaluation of a company during the crisis of 2000 and 2001. He said that Camel ratios are the important analysis tool for carrying out performance evaluation specifically in banking sectors. The underlying cause behind this is that they comprise of important parameters that reflect the results of banking sector performance. Kallunki et al. (2010) again emphasised on the importance of ratio analysis. He suggested that one should approach it as a highly useful tool in financial statement analysis when a set of ratios is used to evaluate performance of a company.

Financial performance directly influences the survival of the company taken up for the study, the absence of financial issues in assessment will lead to biased assessment (Min et al., (2007). He developed a performance evaluation process with financial issues which showed that with the help of Financial ratios the performance evaluation of a company can be more comprehensive.

Ocal (2007) in his paper indicated that financial ratio analysis is a means to provide the government a framework to take corrective action. He took up 50 financial ratios in which some are more important than the others. He identified liquidity, capital structure, profitability, activity efficiency, profit margin and growth, I said structure to be the factors that are affecting economic changes.

Lee and Junkus (1983) identified important literature pertaining to any aspect of financial analysis and planning. It also shows how financial data along with theory can be used by management in useful analysis and planning. As a step further potential research topics in financial Analysis and planning have been identified and indicated for any search to be taken up.

The need to develop ratios for cashless treatment to be integrated into financial reporting (Jooste, L., 2007). This particular paper suggests researchers a list of ratios with which they can predict financial failure. They identified debt ratio to be the best indicator of



failure and that bankruptcy could be predicted three years prior to financial failure. They have also suggested that income statement and balance sheet ratios are not enough to measure liquidity. And a company can have both positive liquidity and profit yet a serious cash flow problem so the ratios should always include cash flow statement ratios along with profit and loss and balance sheet ratio.

Financial ratios can also identify frauds in a company; scientific literature was identified and research to show that financial ratios which are sensitive in relation to management or employees committing fraud, suggested Kanapickiene (2015). He also developed a model of fraud detection in financial statements.

Lewellen (2002) shows that financial ratios can also predict aggregate stock returns. He suggested financial issues like dividend yield book to market and earnings and price issue to predict returns during two periods of study with one being long and one being short. The evidence in both the time periods has been the same. Galizo and Salvador (2003) showcased the behaviour of financial ratios by a hierarchical Bayesian analysis of the partial adjustment model of financial ratios presented in Davis and Peles. He then applied the proposed method to analyse a number of financial ratios for a sample manufacturing firm.

A relationship between a set of financial issues within a single homogenous industry was established by Cowen, Hoffer (1983). This paper will help the researchers to back their use of single industry averages as standards to evaluate individual firm performance. Later on, financial ratios were analysed in terms of their inter which was followed by grouping of firms on basis of composite ratios.

Trigueiros (1994) establish that ratio is used to obtain information from accounting statements, but they only present a part of the information available. He advised that such reporting be complimented with information technology available. The researchers can use the concept developed in this paper for a more comprehensive analysis of financial statements as the model uses discarded information also.

Sometimes the complexity and length of the financial reports can make financial reporting a little bit difficult, said Zehms (1991). Here he suggested ratio analysis as a technique that can be widely used to provide a summary of the financial condition of a company. Cinca et al. (2005) found that ratio is just like the size of the firm, but it varies from different countries. It also States that there are no major differences related to size for financial profitability but when you compare countries such differences in profitability appear.

Tippett (2012) showed that a large number of researches has been done on the analytical and medical and statistical properties of financial ratios. He analysed the industry ratios and their reasonableness as an indicator of financial profitability. He states that accounting ratios do not depend on time and they will vary with time and that normality will be an exception.

A set of ratios to measure the financial activity of the selected companies (Zeller et al., 1996). According to them a broad array of financial ratios used to assess the performance need not necessarily provide meaningful insight. They compared the study with a previous study be carried out and found that the financial characteristics of performance reported earlier were different than the one reported in this paper.

The effective use of cash flow statement as a part of financial statement analysis (Carslaw et al., 1991). They suggested ratios to be used to analyse and evaluate cash flows. They emphasise the use of cash flow ratios along with traditional balance sheet and income statement ratios to provide a better understanding of financial performance of the company. Penman (2011) suggested that instead of being motivated by tradition and convenience by researchers to use financial ratios for financial performance measurement, one should be driven by a careful statistical analysis. In choosing ratio is one should see firm size, objective, industry wide factors etc.

### **3.6 Evaluation of a company's performance through ratio analysis**

This paper is analysing financial statements and balance sheets of the company Škoda Auto. According to Carlson (2019), accounting ratios are grouped into five main classifications:

1. Profitability ratios: These compare the gross and operating profits of the business with sales revenue. In addition, the return on capital employed ratio is examined below and is an important measure of the profit performance of a business.
2. Liquidity ratios: These give a measure of how easily a business could meet its short-term debts or liabilities.
3. Financial efficiency ratios: These give an indication of how efficiently a business is using its resources and collecting its debts.
4. Shareholder ratios: Existing or potential shareholders can use these to assess the rate of return on shares and the prospects for their investment.
5. Gearing ratios: These examine the degree to which the business is relying on long-term loans to finance its operations. It is a reflection of a business's financial strategy.

### **3.7 Benefits of Financial Ratio Analysis**

From the various research papers written on financial ratio analysis it is well established that it is an important technique of financial analysis (Lermack,2003); A few of the benefits are:

1. The set standards for measuring performance.
2. They can be used to evaluate the financial performance of the company.
3. They can identify the areas that need focus from the management.
4. They also help identify the most beneficial area of a company's operation so that they can be used to their full potential.
5. For the outside parties namely the shareholders and creditors and potential investors it provides a technique to assess the profitability of the company.

6. The ability to predict bankruptcy is of utmost importance which can be done through ratio analysis and preventive and corrective measures can be taken in time.
7. Investors with huge investment portfolios can improve their overall performance is by identifying the weak companies in their portfolios from the healthy ones

### **3.8 Limitations of Financial Ratio Analysis**

Despite of the numerous benefits stated above financial ratio analysis also have a few limitations (Lermack,2003) which are:

1. There is no set of perfect Ratios to analyse the financial performance of a company, neither are there any rules as to which are ratios need to be picked for which kind of business. It is all subjective and depends on the researcher.
2. If one has to compare two ratios analysis, they might have a different set of different ratios, different years picked out, so it becomes very different to compare across companies.
3. Also, the accounting practises used to develop financial statements can vary from company to company, across countries. This specifically hinders the comparisons that need to be made globally.
4. A major a major drawback of financial ratio analysis is that it only states us about the present situation of the company if a person needs to know about the future position of a company, he cannot use financial statement analysis as they reflect only past not future.
5. Since it is a quantitative measure it is limited to providing only the number or the cost not value. For this some kind of qualitative assessment needs to be done
6. It is not a dynamic tool for analysis whereas in today's world any management needs to make constant decisions due to the ever-changing business environment.

7. Interpretations from any ratio is again subjective and not necessarily obvious.
8. Ratio is usually establishing a reasonable degree of certainty that is usually very large if one need to make analysis for an industry. So, in addition to ratios and AL analyst needs to gather first-hand information of the company's operations to complement the conclusions of precious.
9. One ratio result is not very helpful – to allow meaningful analysis to be made, a comparison needs to be made between this one result and either:
  - other businesses, called inter-firm comparisons, or
  - other time periods, called trend analysis
10. Inter-firm comparisons need to be used with caution and are most effective when companies in the same industry are being compared. Fiscal years end at different times for businesses and a rapid change in the economic environment could have an adverse impact on a company publishing its accounts in June compared with a January publication for another company.
11. Trend analysis needs to take into account changing circumstances over time that could have affected the ratio results. These factors may be outside the company's control, such as an economic recession.
12. As noted above, some ratios can be calculated using slightly different formulae, and care must be taken to only make comparisons with results calculated using the same ratio formula.
13. Companies can value their assets in rather diverse ways, and different depreciation methods can lead to different capital employed totals, which will affect certain ratio results. Deliberate window-dressing of accounts would obviously make a company's key ratios look more favourable – at least in the short term.
14. Ratios are only concerned with accounting items to which a numerical value can be given. Increasingly, non-numerical aspects of a business performance such as environmental policies and approaches to human rights in developing countries are

becoming observers of company performance and strategy that the firms may operate in. Indicators other than ratios must be used for these assessments.

15. Ratios are very useful analytical tools, but they do not solve business problems or underperformance. Ratio analysis can highlight issues that need to be tackled – such as falling profitability or liquidity – and these problems can be tracked back over time and compared with other businesses. But ratios alone do not necessarily indicate the true cause of business problems and it is up to good managers to locate these and form effective strategies to overcome them.

### **3.9 Vertical and Horizontal Analysis**

Over time, the horizontal evaluation focuses on trends and changes in the financial statements. Vertical assessment is sometimes referred to as a "common-size assessment" because all amounts for a given year are transformed into percentages of the main component of economic statement (Ravinder & Anitha, 2013): Horizontal and Vertical analysis works with the accounting statements, which has the major figures for the current year, last year and as many other accounting periods.

#### **Horizontal Analysis**

Over the period of time, horizontal analysis shows the financial and operating changes of the company. The analysis is presented in financial and percentage terms. This method is usually used for the analysis of income statement and balance sheet. That is the study with the help of a set of records of adjustments in specific elements of the financial report over multiple times. Such an analysis allows the study of periodic fluctuations in various components of the financial statements. Analysis of debt or market capital patterns or their relationship over the last 10 years, or analysis of developments in productivity over a span of 5 to 10 years. The two different approaches are stated below:

- 1) Year to year: The base is always the previous year. This method can easily show the changes from year to year; however, it fails to indicate the changes over a longer time period. It is not possible to determine these changes, since the base year keeps

changing. For the analysis of the long-time changes, is better to use the second approach.

2) Constant base year: The results are obtained with a comparison with the first year. Thus, it is viable to compare the results and to get better view on the overall changes. (Nikolai, Bazley and Jones, 2010)

### **Vertical Analysis**

The financial statements are considered in columns and not across the year. It calculates the share of individual items in the financial statement. Unlike horizontal analysis, when the analysis is based for the balance sheet. It is based on the value of total assets; concerning the income statement it is based on the amount of sales or total revenues.

It is the relationship analysis, as between different components. It is also the analysis of those components. It is also the analysis that is considered as static analysis between these components and their totals for a given period of time. Examples of vertical analysis are comparisons of current assets to current liabilities or comparisons of debt to equity for a single point of time. The vertical analysis can therefore be done as follows (Ravinder & Anitha, 2013):

- By drawing up common size statements of the two similar units.
- By drawing up a common size statement for different years of the same unit.

### **3.10 Income Statement**

For internal use, a detailed income statement is produced as managers will need minutest possible income. It may be produced as frequently as managers need the information – perhaps once a month.

For external use, a summary which is not as detailed will be presented in the published accounts of companies. It will be produced less frequently, but at least once a year. The

content of this is laid down by the Companies Acts and provides a minimum of information. This is because, although the shareholders would use additional information to assess the performance of their investment, the published accounts are also available to competitors and detailed data could give them a real insight into their rivals' strengths and weaknesses. The version used in this chapter is one based on the published accounts of public limited companies, but with additional information where this aid understanding.

Figure 3: Income statement of a company

The account	What it shows
Income statement (formerly known as profit and loss account)	The gross and operating profit of the company. Details of how the operating profit is split up (or appropriated) between dividends to shareholders and retained earnings (profit).
Statement of financial position (formerly known as the balance sheet)	The net worth or equity of the company. This is the difference between the value of what a company owns (assets) and what it owes (liabilities).
Cash-flow statement	Where cash was received from and what it was spent on.

Source: Peter Simpsons, 2012

The three sections of an income statement as stated as below (Barnes, 1987):

1. The trading account: This shows how gross profit (or loss) has been made from the trading activities of the business. It is most important to understand that, as not all sales are for cash in most businesses, the revenue figure is not the same as cash received by the business. This point is covered in more detail later. The formula for calculating total revenue is selling price  $\times$  quantity sold. Therefore, if 120 items are sold at \$2 each, the revenue is \$240.
2. Profit and loss account section: This section of the income statement calculates both the operating profit (or profit before interest and tax) and the profit for the year (profit after tax) of the business.

Operating profit (formerly referred to as net profit) = gross profit minus overhead expenses.



Profit for the year (profit after tax) = operating profit minus interest costs and corporation tax.

3. Appropriation account: This final section of the income statement (which is contained in the IFRS 'statement of comprehensive income') shows how the profit for the year of the company is distributed between the owners – in the form of dividends to company shareholders – and as retained earnings or profit.

### **The uses of income statements:**

One of the main financial statements (along with the balance sheet, the cash flow statement, and stockholders' equity statement). The statement of revenue is also referred to as the statement of profit and loss, P&L, income statement, and statement of operations. The statement of income reports the revenues, gains, expenses, losses, net income and other totals for the period shown in the statement heading. If the stock of a company is traded publicly, earnings per share must appear in front of the statement of revenue. Information contained in income statements can be used in a number of ways (Alamry & Mashkour, 2020):

1. It can be used to measure and compare the performance of a business over time or with other firms – and ratios can be used to help with this form of analysis.
2. The actual profit data can be compared with the expected profit levels of the business.
3. Bankers and creditors of the business will need the information to help decide whether to lend money to the business.
4. Prospective investors may assess the value of putting money into a business from the level of profit being made. All of these users of profit data need to be aware of the limitations of accounting data referred to in the final section of this chapter. In addition, they should also consider the quality of the profit being recorded. For example, a high profit figure resulting from the sale of a valuable asset for more than its expected value might not be repeatable and is, therefore, said to be low-quality profit. Profits made

from developing, producing and selling exclusive product designs, however, are high-quality profits because these are likely to be a continuous source of profit for some time to come.

### **3.11 Balance Sheet:**

There is the most information about the company in the Balance sheet. This information can give the analysts the ability to get to know a great picture about three basic areas (Růčková, 2015):

- Overview of the distribution of the assets at a certain company.
- Sources of financing that can highly affect the functioning of the company.
- Financial position of the company - relationship of current financial assets on the asset side profit or loss on the liabilities side.

### **3.12 Škoda Auto Market, Revenue and Segments:**

Automobile industry is an integral part of the economic sector, globally. This represents a complex area of human activity, it also heavily influences in the creation of employment, and a means to be employed. Therefore, it is a sector, which daily affects each of us, particularly by its influence on the mode of transport that one has to choose. Development of transport has an effect on the current status of the economy and vice-versa. According to a theory of spread effect, the transport industry also has a major impact on the investment. The automobile market has a need to have high capital intensity of the industry, complexity of work contracts arranged between the parties.

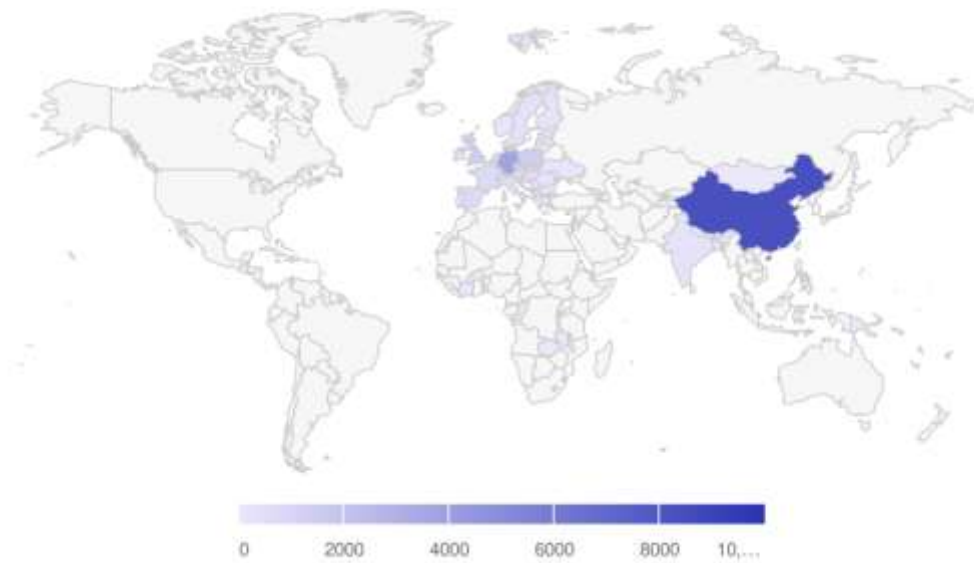
Owing to the large number of employees involved in the project, it has the most impact on the most important sector in the Czech Republic. In Czech Republic automotive sector is one of the most important sectors, and one of the most effective drivers of the Czech economy. Despite the country being relatively small country, owing to developed infrastructure and skilled workforce has performed well. The mentioned factors are driving

the market for Czech Republic's developed automotive industry. Škoda Auto is a traditional Czech producer of passenger cars, which makes the Czech Republic as a founder of the one of the oldest automobile brands, globally. Automotive industry is a crucial topic to discuss the trends and future opportunities in the sector (Škoda Auto, 2020)

Figure 4 Global Škoda Auto Market Revenue Comparison

### Global Comparison - Revenue in the Skoda market

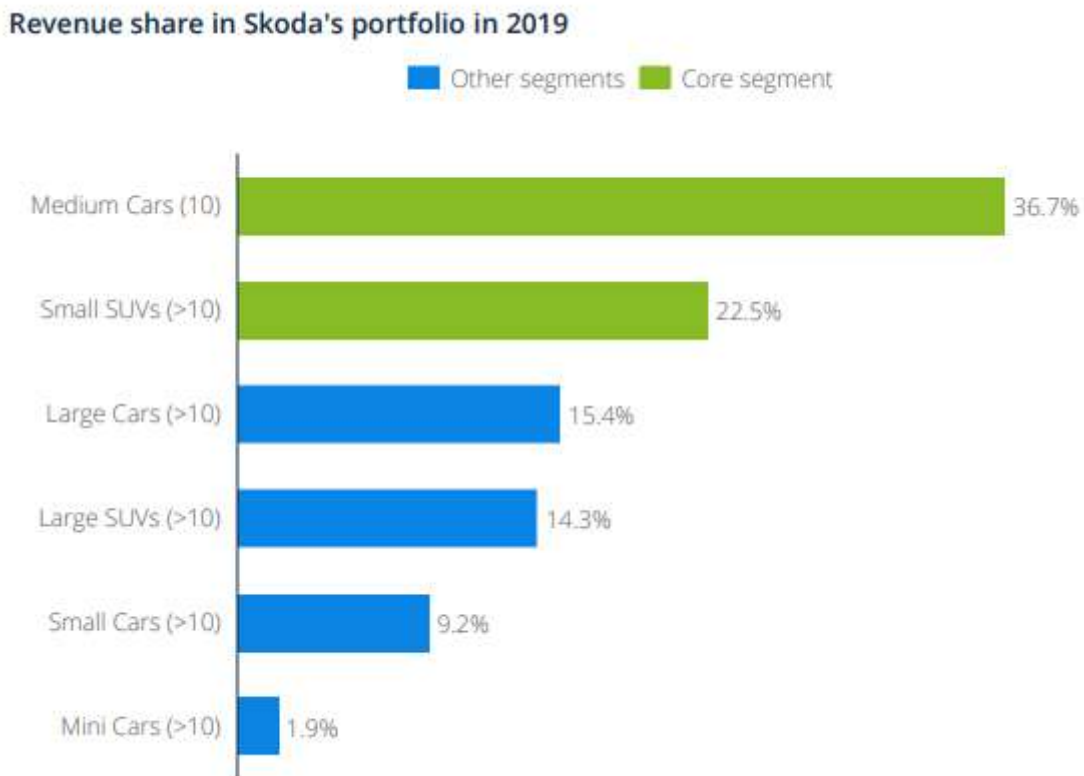
in million US\$ (worldwide)



Source: Statista, 2020

The above comparison manifests the worldwide revenue the company Škoda Auto is making in USD millions. The darker part shows relatively more revenue. In the map illustrated, the China seems to have the highest revenue market for Škoda Auto. However, if one compares it with the continent Europe, there are many countries are having numerous revenues. Combining all the European countries would be having greater revenue than China. India is also having a quiet of the share of the market revenue of Škoda Auto. China would be the most critical market for making Škoda Auto in selected segment with a forecast selling volume of US\$ 8,325 m in 2020.

Figure 5 Segment wise Škoda Auto's Revenue Share



Source: Škoda Report, 2020

As per the 2019's market covered, Škoda Auto made the highest amount of revenue with its core segment of Medium Cars. Core segment is a category in which the company either contributes at least 20 percent of its sales or is an industry leader with at least 10 percent of its segment-generated revenue. The lowest revenue was by Mini Cars' sells. Small SUVs are also majorly making revenue for the company. The company should focus on more Small Cars and Mini Cars segment to increase the revenue comparatively. China being the major market, it is obvious that Medium Cars and Small SUVs are more demanded in the market of Škoda Auto.

## **4. Practical Part**

For this study, Škoda Auto company has been chosen as profile, which is into automobile industry. The company was founded in 1895, the company has manufacturing plants in several parts of the regions. The headquarter of the company is in Czech Republic. The author extracted the data related to the financials of the company in the annual reports. As the company Škoda Auto follows IFRS system (Vašek & Filinger, 2013).

Škoda has adopted International Financial Reporting System: The IFRS aims to ensure that accounts produced by companies all over the world conform to similar terminology and layout. This is to try to avoid confusion when analysing accounts from companies based in different countries. Recently, many changes to the names of the main accounts, the layout of them and the terminology to be used in them have been made by IFRS.

Since more than a century Škoda Auto, also known as Škoda Automobilova AS, has been making cars. In terms of revenue, Škoda is the Czech republic's largest company; The company comprises about 10 percent of the country's exports (Škoda Auto, 2020). Poland and Bosnia assemble small volume of Škoda's Felicia model and other manufacturing ventures are being pursued in India, China, and other Asian countries (Škoda Auto, 2020).

### **4.1 Company profile**

The first car departed Škoda Auto's plant in Mladá Boleslav in 1905 and during the company's more than 120 years of life, millions of others have followed; the registered headquarters of the firm and the car manufacturing team remains in the hometown of the group, although over time output has since expanded to many other towns, cities, and nations (Škoda Auto, 2020). Škoda Auto holds a good presence on the Western European markets as well as in fast-developing areas such as Central Europe and China; the product strategy and more internationalization allowed Škoda to offer for the fifth time in a row, more than one million vehicles to its customers worldwide in 2018 (Škoda Auto, 2020).

## 4.2 History of the company

Škoda Auto have been designing modern vehicles for today since 1895; models which are always ahead of their times. Originally, the entrepreneurial spirit found expression in bicycles, accompanied by bikes and eventually vehicles; below is the timeline of the company evolution from 1895 (Škoda Auto, 2020):

- 1895: Laurin & Klement begin making bikes.
- 1905: The partners' Voiturette automobile debuts.
- 1925: L & K merge with the Škoda industrial firm.
- 1943: Germans take over the plant.
- 1945: Škoda Auto begins producing cars for the proletariat.
- 1991: Volkswagen AG acquires management control.
- 1996: A new mid-size model wins praise.
- 2000: Volkswagen buys Škoda's remaining share

ŠKODA was founded during a time of global awakening. In the late 19th century, new types of transport emerged, reshaping everyday lives of people, and broadening their horizons. Bicycles became readily available; the earliest forms of aircraft were being tested and the automobile was invented. People were fascinated by this exciting new mobility – enthusiastic about speeds never before experienced, they gained the freedom to travel further – easier and quicker than they had ever imagined. It was in this pioneering era that two visionaries, Vaclav Klement and Vaclav Laurin, founded a company together. As passionate cyclists, they were extremely excited about the concept of individual mobility.

In the heart of Europe – at the traditionally strong industrial centre of Bohemia – they began manufacturing bicycles in Mladá Boleslav in 1895. The bicycles bearing the name 'Slavia' were an enormous accomplishment on both the domestic market and abroad. As early as 1899, the young company began producing motorized two-wheelers. These were the first motorcycles in Austria-Hungary. It is thought-provoking to note that Laurin later developed an important design principle for motorcycles, whereby the frame was constructed around the engine.

The speed at which transportation has developed was immense. After their success with two-wheeled vehicles, the pioneers took a great leap forward. At the turn of the century, Laurin & Klement were already working on a four-wheeled prototype. Finally, in 1905, they introduced their first automobile under the name 'Voiturette', which they launched into full-scale series production one year later.

As one of the longest-established car companies in the world, ŠKODA Auto looks back on a rich tradition and a wealth of fascinating automobiles. The brand's expertise is based on a tradition spanning 120 years and the experience of a talented team, with generations of families working for the company today.

1991 marked the dawn of a new era for the brand. After the Planned Economy years, ŠKODA Auto went on to become the fourth brand under the Volkswagen Group, after which the leadership, marketing, product development and production underwent substantial modernisation. Today, with a range of over 40 models, ŠKODA Auto produces more than one million vehicles annually, and our cars are available on more than 100 markets around the world.

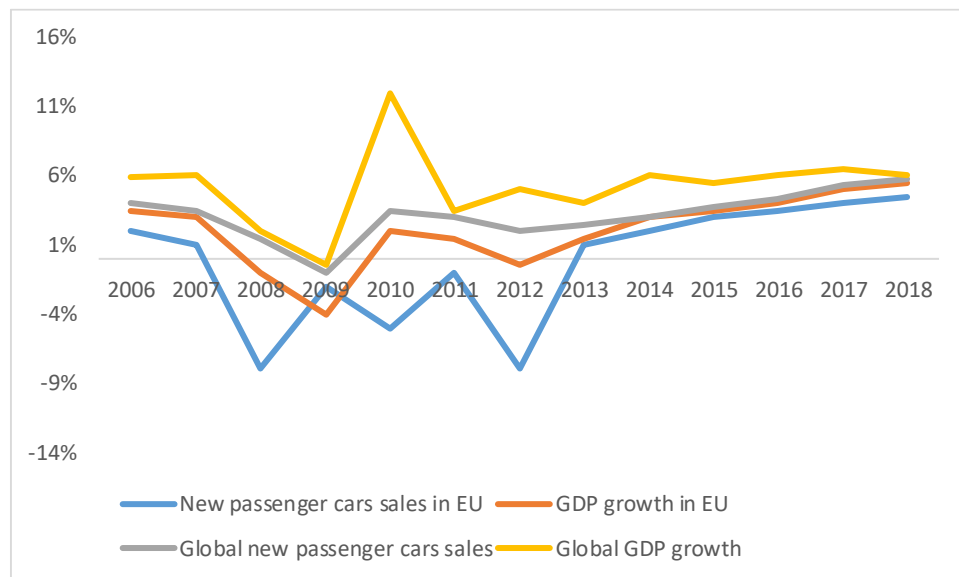
### **4.3 Details of the company:**

Below are the details of the company Škoda Auto as per the report of 2017 (Škoda Auto, 2020):

- Wholly Owned Subsidiary of Volkswagen AG
- Incorporated: 1895
- Employees: 32,985 (2017)
- Sales: 16,559 million Eur (2017)
- NAIC: 336111 Automobile Manufacturing

Škoda automobiles are sold in over 100 countries and in 2018, total global sales reached 1.25 million units, an increase of 4.4% from the previous year. The operating profit was €1.6 billion in 2017, an increase of 34.6% over the previous year. As of 2017, Škoda's profit margin was the second highest of all VW Group brands after Porsche.

Figure 6: GDP and Car Sales Growth in the World and in EU

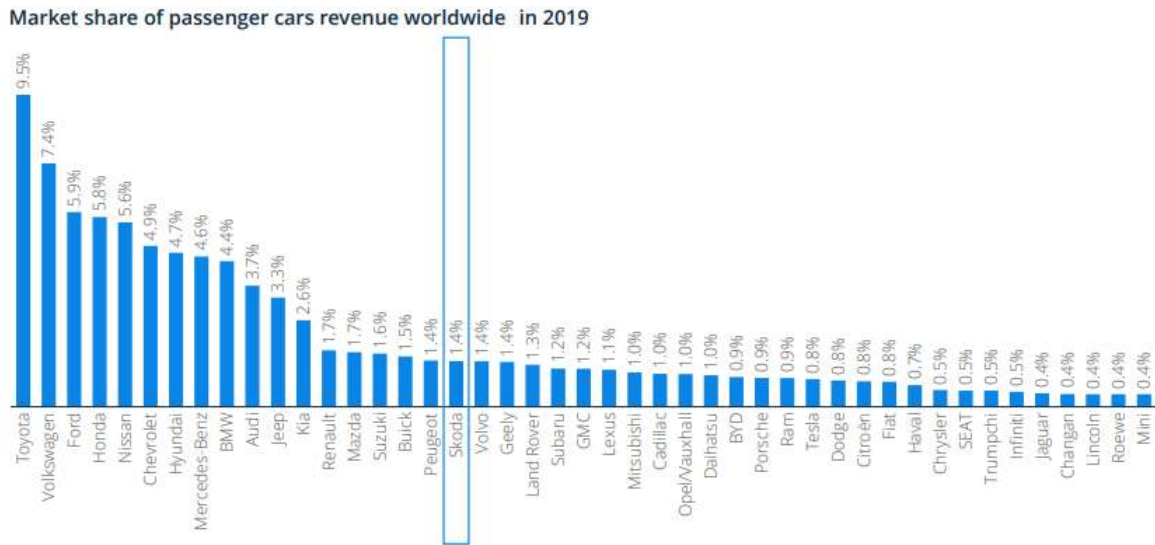


Source: European Commission; OICA

Based on data available from 2005-2015, it has been extrapolated the data till 2018. The figure has data on new passenger cars sales in European Union and Global new passenger car sales. When it has been compared the similar data, there came a conclusion that during recession i.e. 2008, European Union was hit by it more than the global level. The study conducted by European Automobile Manufacturer’s Association; this was majorly driven by the market by for another car. Whereas in Asian countries, car sales were less hit as it was purchase of first car. The Europe being the birth land of Škoda Auto, it is also having the largest sales in the European market. Due to “2008 Global Market Crash” and “2009 Eurozone Market Crash, the GDP and car sales trend is fluctuating till the year 2013. The conclusion can be drawn that the European Market Crash had influenced the GDP and Sales for more than three years. However, the market seems stable after the year 2013.



Figure 7 Comparative Worldwide Market Share of Skoda Auto in 2019

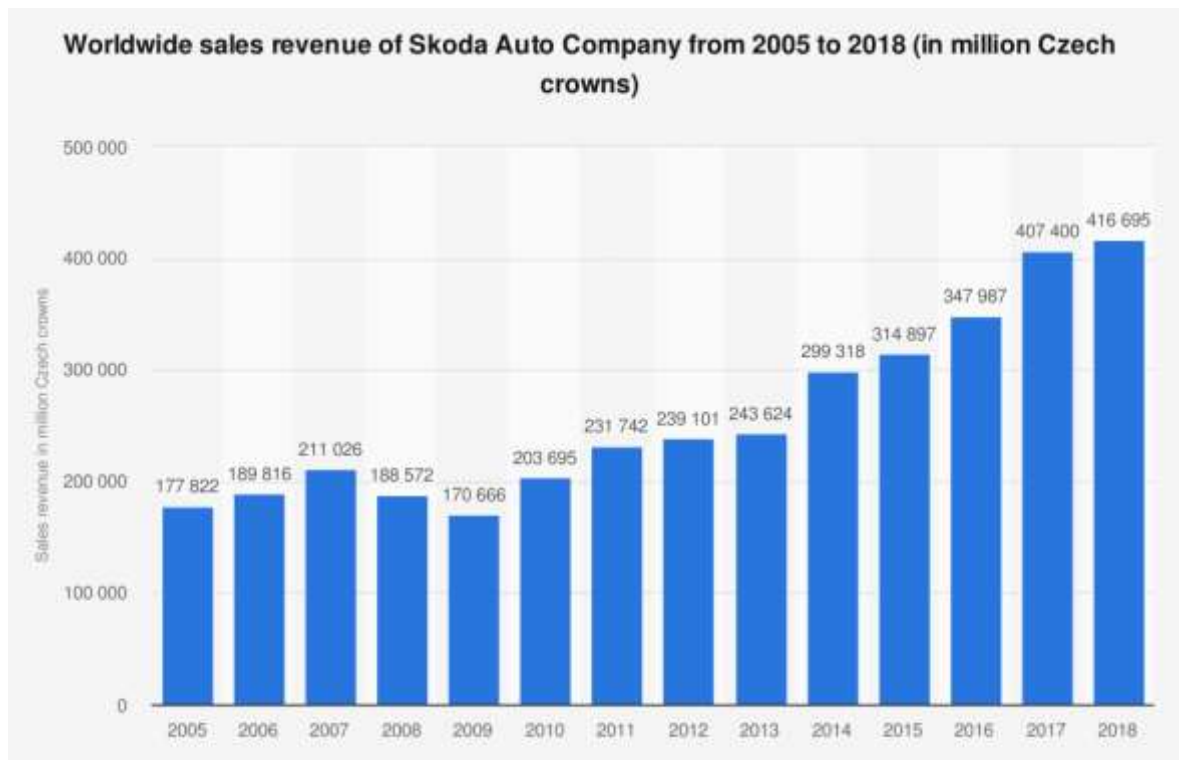


Source: Škoda Report, 2020

The above figure demonstrates Škoda Auto’s worldwide market share with respect to other automobile manufacturers. The Toyota Auto market in the world is very huge with in total 9.5 percent of the market share and then comes the Volkswagen. There are seventeen automobile makers are having more market shares than the Škoda Auto. On the other hand, twenty-seven automobile makes are behind the Škoda Auto in terms of global revenue market share of 2019.

As per the continental sales of Škoda Auto shown in the Literature Review section, Škoda Auto should target more countries to achieve higher global market share. American continent is having very less users of the Škoda Auto makes and it should be focused to get a move-up in the list of global market share.

Figure 8 Sales Revenue of Škoda Auto Company from 2005 to 2018

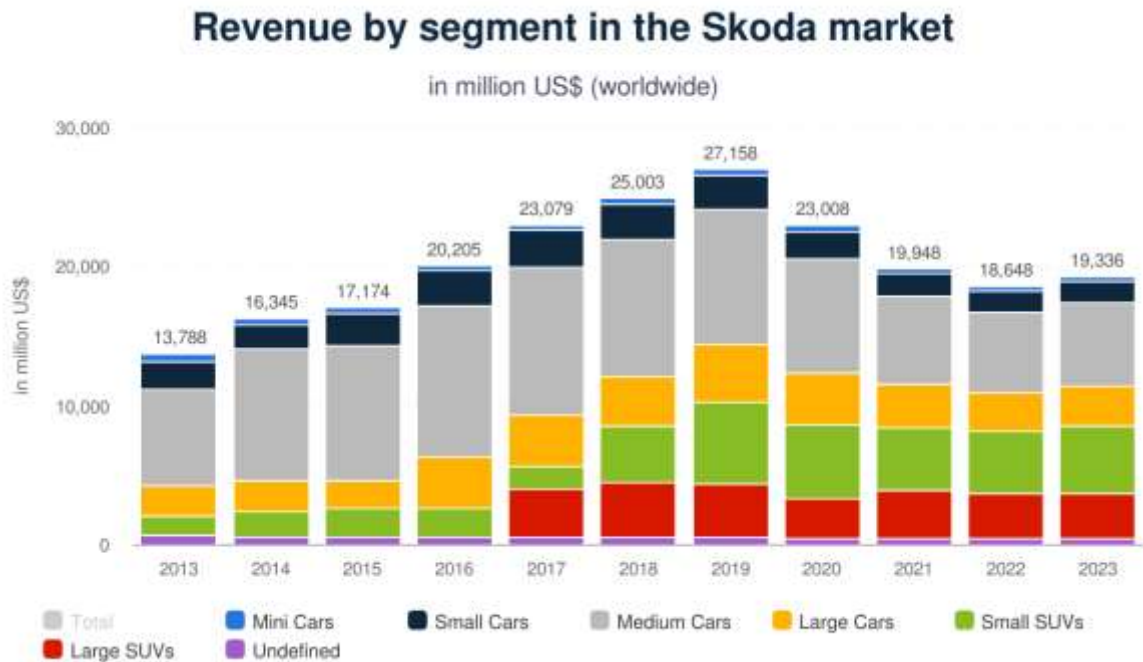


Source: Statista, 2020

Worldwide sales revenue of Škoda Auto is increasing as per the above manifestation. There is a noticeable bump at the year 2009 which shows the impact of the 2008 Global Market Crisis. The years 2011, 2012 and 2013 seems to have a stable revenue each year which is because of the impact of the European Market Crisis. After 2013, the worldwide sales revenue of the company is continuously rising.

Overall, it can be observed that the company is increasing its revenue and reputation in the world very fast in the twenty-first century. It can also be drawn out a conclusion that there is a massive influence of European Market Crash crisis due to the high volume of production and sales in the Europe.

Figure 9 Škoda Auto Market Segment-wise Revenue and Forecast



Source: Statista, 2020

This incredible analysis of the revenue of Škoda Auto market is an analysis of the year 2013 to the mid-2020 and forecast of the years from 2020 to 2023. It can be easily noticed that the Škoda Auto started the Large SUVs selling from the year 2017 and it seems a huge success to the company. From the 2013, the revenue is only rising in the majority of the segments. However, the influence of COVID-19 which started at the late 2019 impacted a lot in use of vehicles. Hence, 2020 is having a deep fall in the demand for the vehicles and hence, the Škoda Auto has predicted the overall revenue of the company less than the year 2019. And, the COVID-19 is going to impact on the humankind for long due to its highly contagious characteristics. That's why, the Škoda Auto's revenue is predicted to be comparatively a lesser in amount. This forecast could only be better for the upcoming years if there is a technological, economic and environmental support to the global economy.

#### 4.4 Analysis of Balance sheet

There is the most information about the company in the Balance sheet. This information can give the analysts the ability to get to know a great picture about three basic areas:

- a) Overview of the distribution of the assets at a certain company.
- b) Sources of financing that can highly affect the functioning of the company.
- c) Financial position of the company - relationship of current financial assets on the asset side profit or loss on the liabilities side. (Růčková, 2015)

The horizontal and vertical analysis of the balance sheets are performed in the next two headers.

#### 4.5 Horizontal analysis of the balance sheet:

This helps in evaluating the percentage change of particular item of the balance sheet over the year as follows:

- a. company overview in terms of distribution of the assets.
- b. the company is having an influence in the functionality with sources of financing.
- c. relationship of the current financial assets and the profit or loss on the liabilities side to determine the financial position of the company.

Table 6: Horizontal analysis of the “Škoda Auto” balance sheets

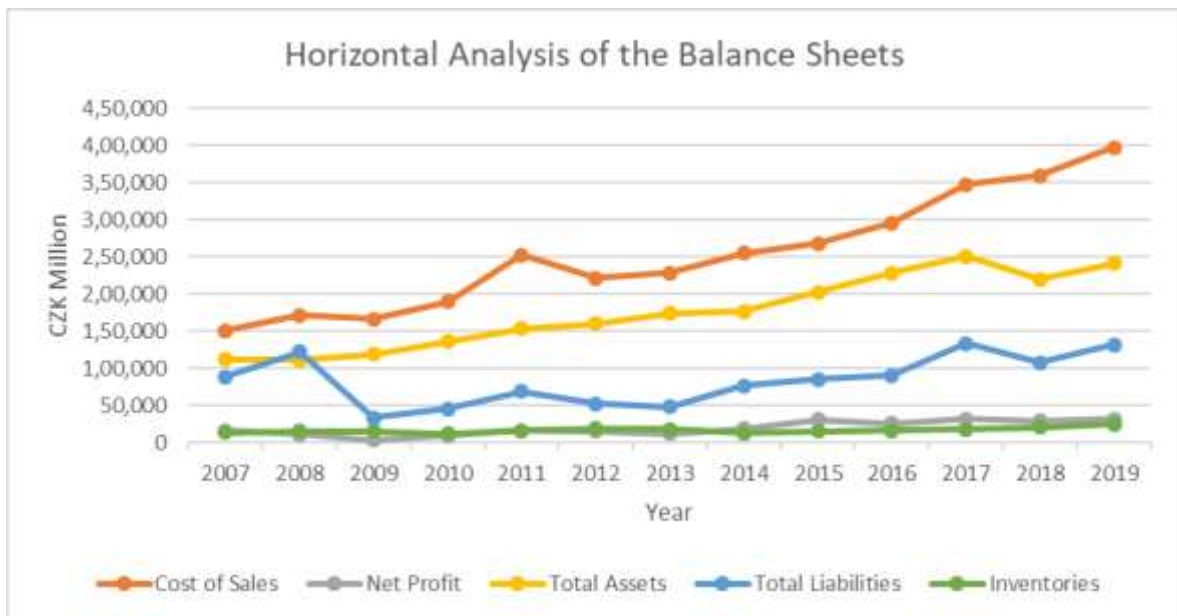
–	Cost of Sales	Net Profit	Total Assets	Total Liabilities	Inventories
2007	1,50,258	15,982	111650.3	88,179	13,543
2008	1,71,523	10,818	1,11,395	1,22,456	15,136
2009	1,66,296	3,462	1,18,376	33,493	15,136
2010	1,89,260	8,839	1,35,736	45,484	11,675
2011	2,52,562	16,075	1,53,557	69080	16,061
2012	2,21,751	15,354	1,59,986	51,896	18,619
2013	2,28,459	11,832	1,73,584	47,603	17,928
2014	2,54,994	18,421	1,76,869	76,868	12,326
2015	2,68,184	30,816	2,02,615	85,133	15115

2016	2,95,232	25,163	2,28,180	90,600	16093
2017	3,47,519	31,841	2,50,859	133375	17,614
2018	3,59,421	28,892	2,19,318	107644	20,211
2019	3,97,086	31,689	2,41,635	1,32,009	24,863

Source: Calculated from Škoda annual reports, 2007-2019.

The above table depicts the horizontal analysis of the company Škoda Auto from the year 2007 to 2019. However, it is very chaotic to interpret. Hence graphical representation was formed and exemplified below:

Figure 10 Horizontal analysis of the “Škoda Auto” balance sheets



Source: Calculated from Škoda annual reports, 2007-2019.

From the horizontal analysis, it is certain that the company had used its liabilities power by decreasing it to adjust with the 2008 economic crisis. And consequently, the company survived easily, and its liabilities are kept stable in comparison with the 2008. However, total assets of the company are only increasing except the year 2018. The China Stock Market crash and fall in demand could be the reason of the downfall.

Cost of sales also seems to be increasing with stability. The hike in the cost of sales of 2011 year could be a reason of the effect of European Market Crash. However, Net Profit

and Inventories are stable since the year 2007. Technological advancements could also be the reason of continuously rising of assets and liabilities.

**Total Assets:** It can be claimed, based on the balance sheet, that the new equipment will be bought in 2014 and then additional buildings acquired in 2015 because of new equipment. Long-term asset expansion was the highest in 2017. The equipment has improved tremendously this year. Compared to 2014, in terms of Czech crowns it rose by 101 percent to more than CZK 71,730. The organisation has a lot of contracts since 2016, and it is apparent that it had to buy new equipment to fulfil all the contracts. Moreover, 2018 fall in the trend is an influence of Chinese market demand fall. However, overall trend for total assets seems to be increasing over years from 2007 to 2019; no other significant abnormality found.

**Cost of sales:** Cost of sales is consumption of factors of production incurred for the purpose of production expressed in financial units is called expenses. It can be observed that the cost of sales is low from 2007 to 2010. However, it rises tremendously showing abnormality in the trend on the year 2011. Which means that the Eurozone market crisis influenced the company to increase its cost of sales. In 2015, the cost of sales increased by 5%, and exponentially in the subsequent years. In 2016, to 2018, expenses that are a measure of consumption, depreciation of entity's assets and personnel work in order to produce and sell services and goods. In 2019, the cost of sales is at its peak over the years. It is measured as a cost of goods sold and cost of services sold to a customer.

**Net Profit:** The net profit of the firm is increasing. Though, in 2009, there could be seen a fall; the key reason of it is the global market crisis, the company could not make significant profits during that span. On the other hand, in 2016 it was much lesser than the subsequent and former years. Whereas net profit is dwindling in the same time period. It increases and then falls and this performance repeats in the next two years. Nevertheless, from 2015 to 2019, it can be observed that the net profit of the firm has risen, and it is found to be in stable state which is a good indicator.

**Inventories:** Overall, it can be noticed that the inventories cost has no major influence. It is found to be linear throughout the 13 years which indicates that the company has a good

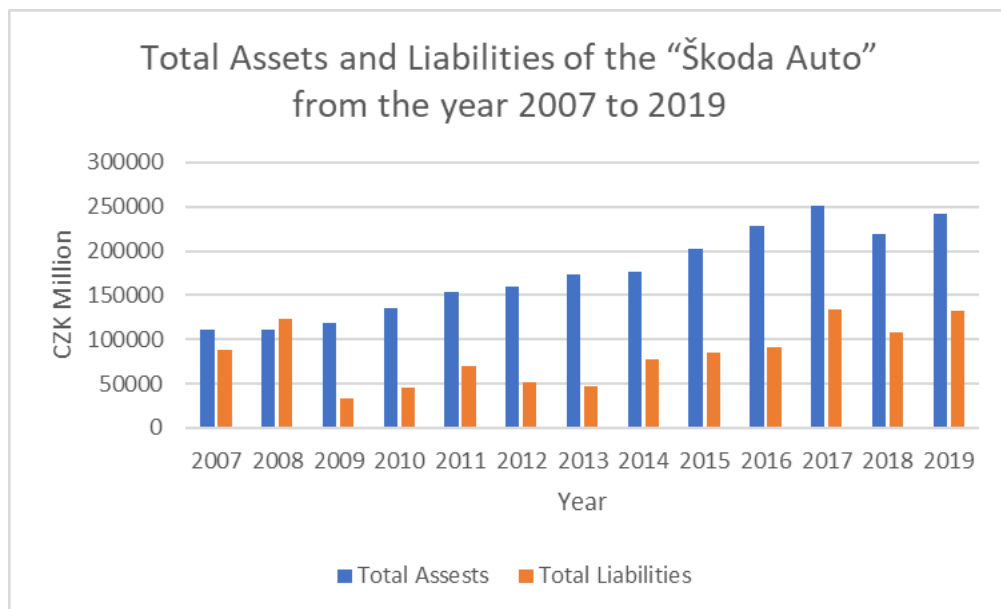
control over their inventories no matter the influence of environmental and economic factors. However, with the rising sales, the inventory cost should rise by prospective years.

**Total Liability:** The overall trend is very unstable over the thirteen years. Total liabilities of the company were at its highest on the year 2008 and then it fell drastically in 2009. The purchase of the new equipment in the year 2015 then the purchase of the new buildings in the year 2016 has increased the current liability at linear rate. Current liabilities have increased every year except for the year 2018; however, in 2019, it gains its trend back to increasing. This does not represent as an ideal situation and is closely dependent on receivables. Besides, 2008 liability instability could be a reason of 2008 Market Crash Crisis.

#### 4.6 Vertical analysis of the balance sheet

Vertical analysis tracks the percentage share of the individual items of a balance sheet of one year. The percentage share of individual items at a balance sheet of one year.

Figure 11: Total Assets and Liabilities for the Year 2007-19



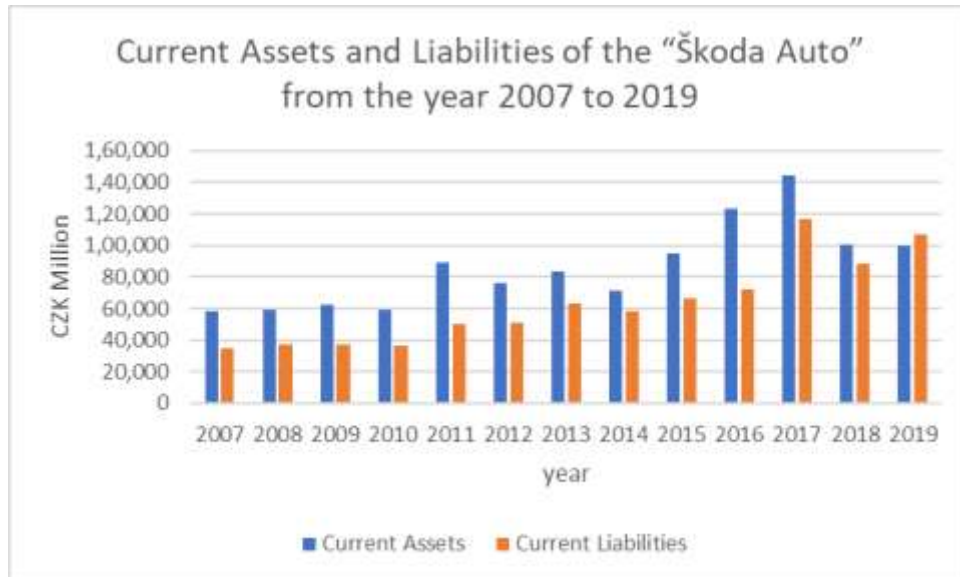
Source: Calculated from Škoda annual reports, 2007-19

The company has more of total assets compared to the liabilities except the year 2008. The data point for the years is increasing at steady rate. As the automobile industry has- more

equipment which leads to increase in the total assets compared to the liabilities at industry level as well.

Total Liabilities are also showing unstableness of the market which could be the Eurozone Market Crisis. And, reduction in 2018 liability is an indicator of demand crisis of China.

**Figure 12: Current assets and liabilities for the year 2007-19**



Source: Calculated from Škoda annual reports, 2007-19

The company has more of current assets compared to the liabilities. Current assets data point has an inverted bell-shaped curve from the year 2014 to 2018. During the same time period, current liability also has similar curve. At industry level, the company is able to harness economies of scale and returns of scale after being in the automobile industry for a specified amount of period.

#### **4.7 Operating Profit Margin (%)**

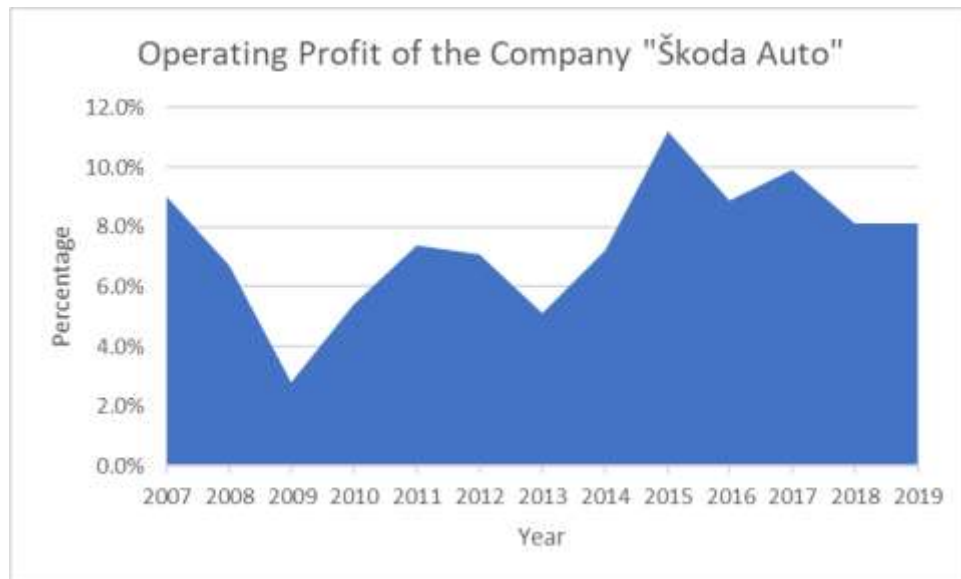
Operating income is an accounting figure that measures the amount of profit realized from a business's operations, after deducting operating expenses such as wages, depreciation, and cost of goods sold (COGS).



It is also called as the earnings before interest and taxes for a given accounting period, that is, 2007 to 2019. The amount of money that remains after the cost of goods and all operating expenses are subtracted from net revenue.

Calculation:  $\text{Operating Income} / \text{Sales} * 100$

Figure 13 Operating Profit of Škoda Auto from 2007 to 2019



Source: Calculated from Škoda annual reports, 2007-19

The operating profit margin gives an idea of profitability of the firm. It is reflecting the percentage of revenue left of the company Škoda Auto after cost of selling cars and other operating expenditures. The profitability of the company was at its highest point on the year 2015 and lowest on the year 2009.

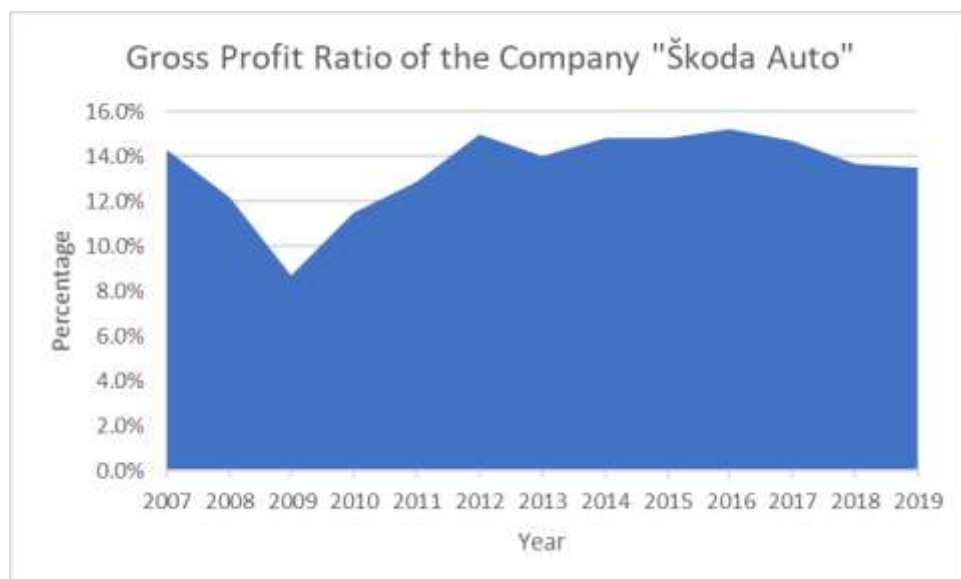
The decrease of the profit in 2009 is because of the 2008 world-wide market disaster. The other fall after the year 2011 is the influence of the European economy catastrophe. However, at present, the company is at a stable profitability but there will be a huge influence of the COVID-19 outbreak worldwide.

## 4.8 Gross Profit Margin (%)

The annual report of Škoda gives sales and cost of sales data in the annual report. This metric is used to assess a Škoda's business model and financial health by revealing the amount of money left over from sales after deducting the cost of goods sold. The gross profit margin is often expressed as a percentage of sales and may be called the gross margin ratio.

Calculation:  $(\text{Sales} - \text{Cost of Sales}) / \text{Cost of Sales} * 100$

Figure 14: Gross Profit Ratio (%):



Source: Calculated from Škoda annual reports, 2007-19

The increasing overall trend of the company Škoda Auto is a good sign it indicated that the company's ability is improved to earn gross profit. The company did well in managing its cost of sales over years. After 2019, it has risen and then it is very stable. There is no significant impact of Eurozone Crisis or the China Market Crash crisis. However, a huge impact of the global economy crisis is noticeable.

## 4.9 Net Profit Margin

It is the percentage of revenue remaining after all operating expenses, taxes, interest, and preferred stock dividends have been deducted from a Škoda's total revenue.

Calculation: Net Profit Margin (%):  $\text{Net Profit (after Interest \& tax)} / \text{Sales} * 100$

Figure 15: Net Profit Margin (%):



Source: Calculated from Škoda annual reports, 2007-19

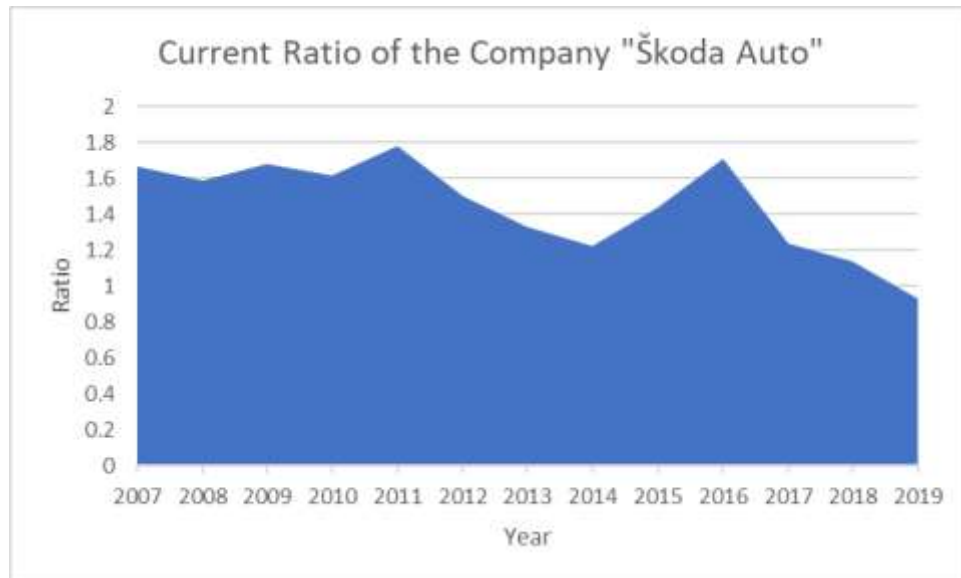
The upward sloping trendline indicates the company's ability to make profit out of the actual sales. Hence, Škoda Auto is not having any forthcoming negative indicators. However, the company's 2009 Net Profit Margin is breath-takingly low because of the worldwide market issue. It can be seen that the Škoda Auto is having very stable net profit margin since last four years.

## 4.10 Current Ratio

It is considered to measure a company's ability to pay short term liabilities within one year. It maps for investors and analysts in order to guide a company to maximize the current assets on its balance sheet to satisfy its current debt and other payables.

Calculation: Current Ratio: Current Assets / Current liabilities

Figure 16: Current Ratio of Škoda Auto



Source: Calculated from Škoda annual report, 2007-19

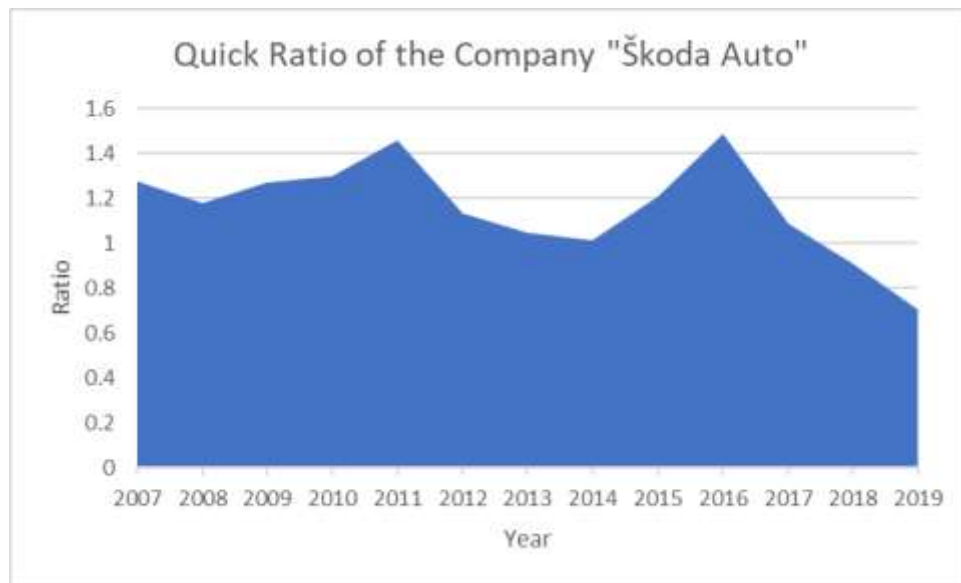
It is very intriguing to know that over years, the company Škoda Auto is more efficiently using its current assets. That means that, technological advancements over years are affecting a lot the maintain the company's liquidity. As per the current ratio analysis of the company Škoda Auto, it can be said that the liquidity of the company is improving over years.

#### 4.11 Quick Ratio

It is a ratio which evaluates the ability of the company to manage its short-term financial liabilities.

Calculation: Quick Ratio: (Current Assets - Inventories) / Current Liabilities

Figure 17: Quick Ratio of Škoda Auto



Source: Calculated from Škoda annual report, 2007-19

It is a measure of a Škoda company's ability to pay short-term obligations of a year or less. It is calculated to evaluate the ability to turn assets into cash. The current ratios vary from industry to industry. In automobile industry, a current ratio will generally fall between 1.5 and 3. Liquidity ratio covers current ratio and quick ratio under consideration.

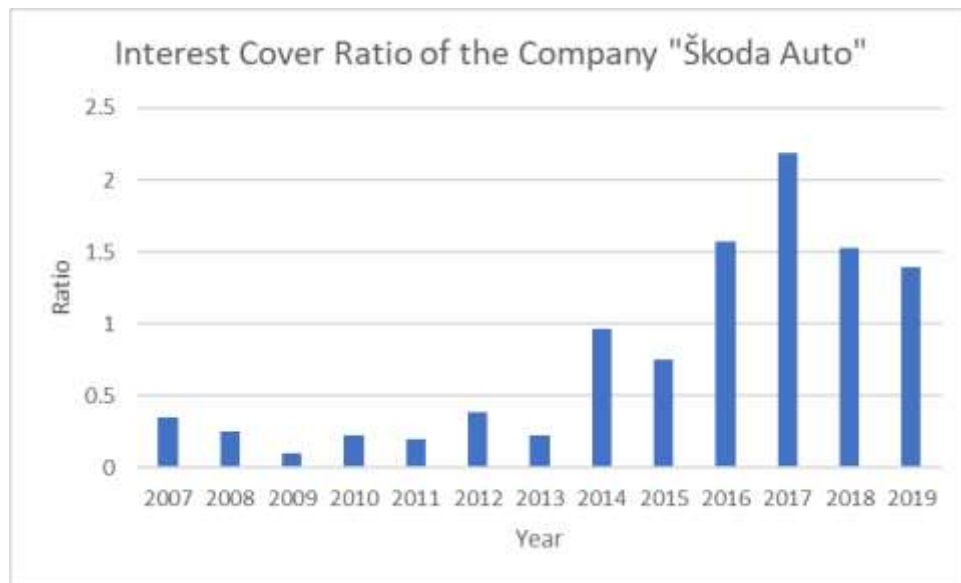
Through the above analysis, it can be said that the company was inefficiently using its current assets and short-term financing facilities on the year 2016 and 2011. But after 2016, the efficiency of using its current assets and short-term financing facilities has significant improvements.

#### 4.12 Interest coverage ratio

The interest coverage ratio is used to determine with the ease with which a company can pay their interest expenses on outstanding debt. The ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by the company's interest expenses for the same period.

Calculation: Interest Coverage:  $EBIT / \text{Interest Expenses}$ .

Figure 18: Interest Coverage Ratio



Source: Calculated from Škoda annual report, 2007-19

The ratio shall be determined by the separation over the same duration of interest costs of a business received before interest and taxes (EBIT). The lower the number, the higher the debt load on the company. Where the interest coverage level of an entity is just 1.5 or below, it could be doubtful for it to meet interest expenditures. Companies require more than adequate revenue to cover interest payments in order to withstand potential (and likely unforeseeable) financial difficulties. The willingness of a corporation to satisfy its interest obligations is a solvency feature, and thus it is a significant consideration in shareholders' return. In most of the years, Škoda Auto's burden of its debt expenses is higher. Except, the years 2016, 2017, and 2018, the Škoda Auto's Interest Cover Ratio is not sufficient. The company should do something to keep the ratio above 1.5 because when a company's interest coverage ratio is only 1.5 or lower, its ability to meet interest expenses may be questionable (Investopedia, 2020). It is not much easy for the company to make its interest payments as per the year 2019. However, there is a significant improvement than the years before 2016.

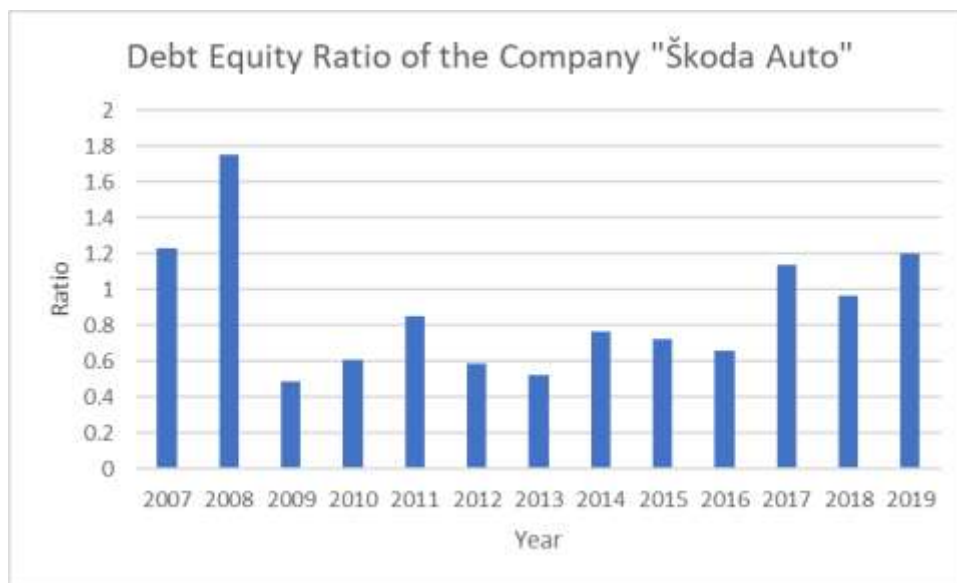
#### 4.13 Debt Equity Ratio

The debt-to-equity (D/E) ratio is calculated by dividing a company's total liabilities by its shareholder equity. These numbers are available on the balance sheet of Škoda company's

financial statements. ... It is a measure of the degree to which Škoda is financing its operations through debt versus wholly owned funds.

- Calculation: Debt Equity Ratio: Total Liability /Shareholder's Equity

Figure 19: Debt Equity Ratio



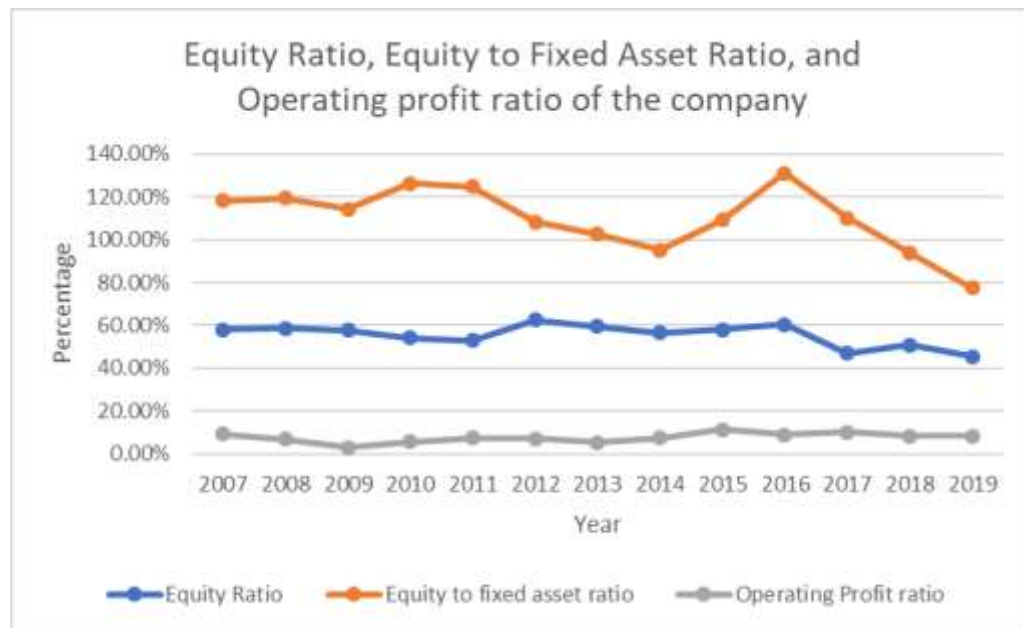
Source: Calculated from Škoda annual reports, 2007-19

Debt Equity Ratio indicated the company Škoda Auto's stockholder's equity and total liabilities of the company. It can be observed that the company is having lower amount of financing by debt via lenders, versus funding through equity via shareholders. The higher ratio at 2008 indicates that the business gets more of its funding by borrowing money and puts the company at risk if the debt level becomes too large.

#### 4.14 Long-term Debt Equity Ratio

The leverage that business has taken on can be determined by a method, that is, long-term debt to equity ratio. To derive the ratio, divide the long-term debt of an entity by the aggregate amount of its preferred stock and common stock.

Figure 20 Equity ratio, Non-current assets to equity ratio and operating profit



Source: Calculated from Škoda annual reports, 2007-19.

- Calculation: Long Term Debt Equity Ratio:  $\text{Long-term debt} / (\text{Preferred stock} + \text{Common stock})$

It is calculated to evaluate ability to pay one's debts and the possession of assets in excess of liabilities. It is calculated by dividing a Škoda company's after-tax net operating income by its total debt obligations. The net after-tax income is calculated by summing up the non-cash expenses, such as amortization and depreciation, back to net income. These figure's come from the company's income statement.

The above graph manifests the leverage ratio of the company Škoda Auto. The graph shows that the equity to fixed asset ratio was comparatively higher before the year 2019. That means that return on equity is now improved than before. On the other hand, equity ratio and operating profit ratio of the company is stable throughout the years. In a consequence, it can be said that at present, the company is not at any financial risk due to good leverage or solvency.

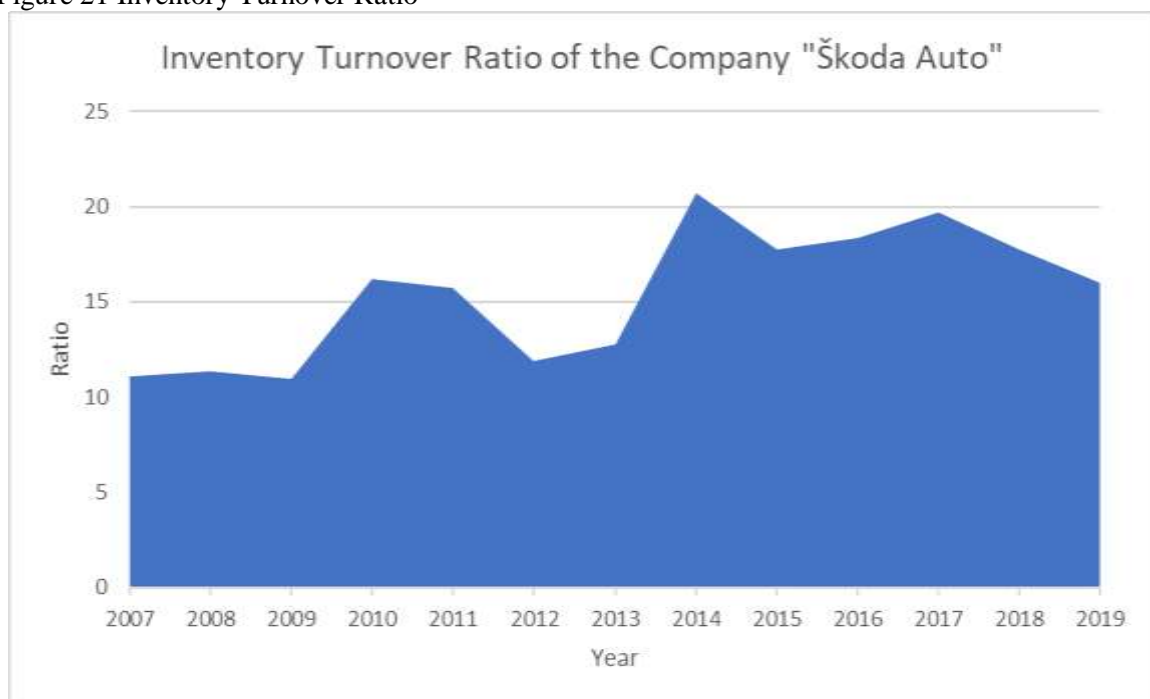


#### 4.15 Inventory Turnover Ratio:

The inventory turnover ratio is calculated by dividing the cost of goods sold for a period by the average inventory for that period. Average inventory is used instead of ending inventory because many companies' merchandise fluctuates greatly throughout the year.

- Inventory Turnover Ratio:  $\text{COGS} / \text{Average Inventory}$

Figure 21 Inventory Turnover Ratio



Source: Calculated from Škoda annual reports, 2007-19

With a few variations, the efficiency ratio specifies the expenses as a percentage of revenue. It is essentially to understand the manner in which an individual or corporation spends to make a dollar. The concept typically applies to banks. The aim of the entities is to minimize the efficiency ratio.

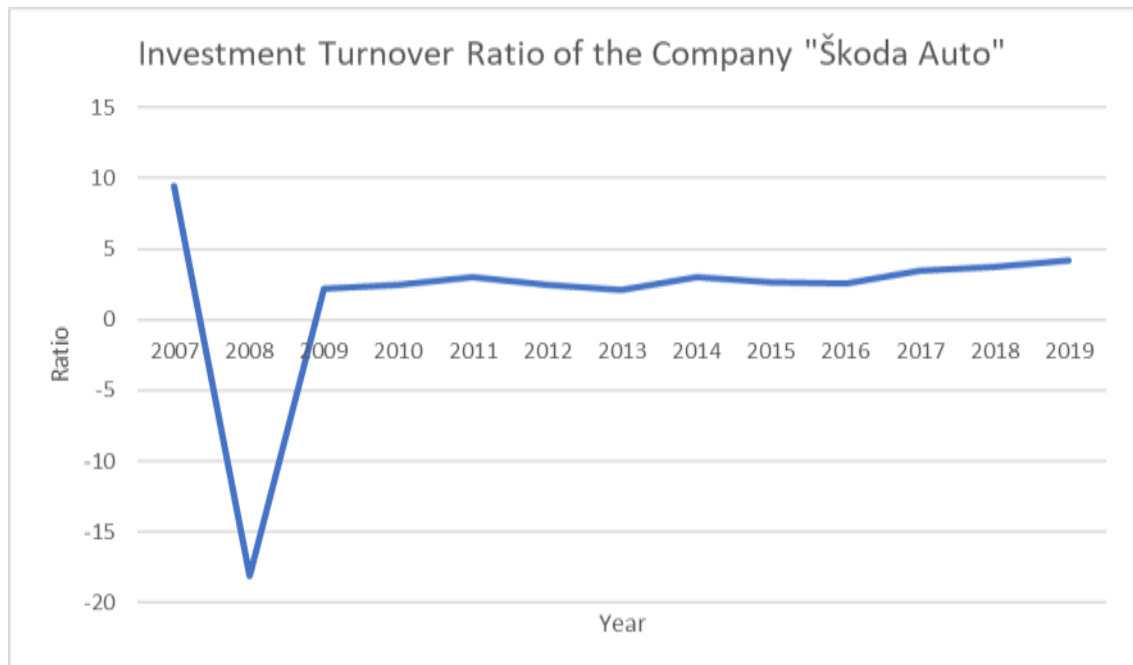
From the above graph of Škoda Auto's inventory turnover ratio, it is concluded that since 2014, the company's management of its inventory efficiency is good enough; because the higher the inventory ratio, it is good for the company (Investopedia, 2020). Nonetheless, before the year 2014, it was very inefficient inventory management.

## 4.16 Investment Turnover Ratio

The ratio compares the company's sales produced by the Škoda company to its net worth. This ratio is used to evaluate the ability of a management team to generate with a specific funding.

- Calculation: Investments Turnover Ratio: Sales / Total Net Worth
- Total net worth: Total assets – total liabilities

Figure 22: Investment Turnover Ratio



Source: Calculated from Škoda annual reports, 2007-19

There is a tremendous downfall of the Škoda Auto's Investment Turnover Ratio can be observed. Which means that the 2008 global market crisis influenced a lot to the company's ability to generate revenues using the debt and capital that have been invested for Škoda Auto.

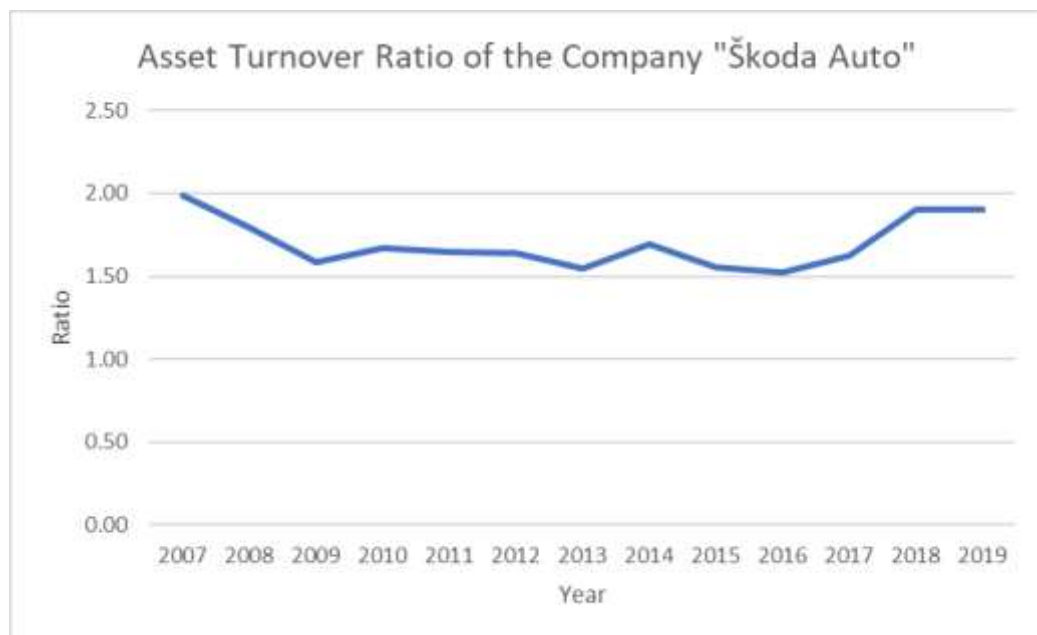
It is good to observe the stability of the trend of the Škoda Auto's Investment Turnover Ratio after the year 2009. That means, the company is very experienced in operating the firm efficiently due to the shock of 2008 sagacity.

#### 4.17 Asset Turnover Ratio

It is an efficiency ratio, which measures a Škoda company's ability to create sales from its assets by comparing Škoda's net sales with average total assets.

- Calculation: Asset Turnover Ratio: Sales/ Total Assets

Figure 23: Asset Turnover Ratio



Source: Calculated from Škoda annual reports, 2007-19

The asset turnover ratio of Škoda Auto is very stable over years. That indicates that the company is good at generating revenues from its assets since long. And, the future technological advancements can make it even more better.

#### 4.18 Overall Margins and Ratios of the company Škoda Auto

This section of the practical part re-demonstrates the whole analysis done in the practical part in a tabular form to comprehend every factor composed. The tables are formed

categorising the financial analysis by profitability, liquidity, solvency and efficiency of the Škoda Auto with the observation of the years from 2007 to 2019.

Table 7: Ratio and Margins (2007-19)

Year	Profitability			Liquidity	
	Operating Profit Margin	Gross Profit Margin	Net Profit Margin	Current Ratio	Quick Ratio
<b>2007</b>	9.0%	14.3%	7.20%	1.67	1.28
<b>2008</b>	6.7%	12.2%	5.4%	1.59	1.18
<b>2009</b>	2.8%	8.7%	1.8%	1.68	1.27
<b>2010</b>	5.4%	11.5%	3.9%	1.62	1.30
<b>2011</b>	7.4%	12.9%	6.4%	1.78	1.46
<b>2012</b>	7.1%	15.0%	5.9%	1.50	1.13
<b>2013</b>	5.1%	14.0%	4.4%	1.33	1.05
<b>2014</b>	7.2%	14.8%	6.2%	1.23	1.02
<b>2015</b>	11.2%	14.8%	9.8%	1.43	1.21
<b>2016</b>	8.9%	15.2%	7.2%	1.71	1.49
<b>2017</b>	9.9%	14.7%	7.8%	1.24	1.09
<b>2018</b>	8.1%	13.7%	6.9%	1.14	0.91
<b>2019</b>	8.1%	13.5%	6.90%	0.93	0.70

Source: Calculated from Škoda annual reports, 2007-19

As figured in the practical part of this study, the above table is a representation of Škoda Auto's profitability and liquidity factors. The conclusions drawn from the analysis has already been discussed. The table shows the data of the company Škoda Auto of last thirteen years (2007-19).

Table 8: Ratio and Margins (2007-19)

Year	Solvency				Efficiency		
	Interest Cover Ratio	Debt Equity Ratio	Equity Ratio	Equity to Fixed Asset Ratio	Inventory Turnover Ratio	Investment Turnover Ratio	Asset Turnover Ratio
2007	35.28	1.23	57.90%	118.1%	11.09	9.46	1.99
2008	25.82	1.75	58.50%	119.3%	11.33	-18.10	1.80
2009	9.80	0.49	57.60%	114.3%	10.99	2.21	1.59
2010	22.54	0.61	54.00%	126.2%	16.21	2.51	1.67
2011	19.94	0.85	52.90%	124.8%	15.73	2.99	1.64
2012	38.32	0.59	62.50%	108.2%	11.91	2.43	1.64
2013	22.30	0.53	59.40%	102.7%	12.74	2.13	1.55
2014	97.04	0.77	56.5%	95.1%	20.69	2.99	1.69
2015	75.08	0.72	58.0%	109.1%	17.74	2.68	1.55
2016	157.39	0.66	60.3%	131.1%	18.35	2.53	1.53
2017	218.58	1.14	46.8%	110.1%	19.73	3.47	1.62
2018	152.74	0.96	50.9%	93.9%	17.78	3.73	1.90
2019	138.98	1.20	45.4%	77.5%	15.97	4.19	1.90

Source: Calculated from Škoda annual reports, 2007-19

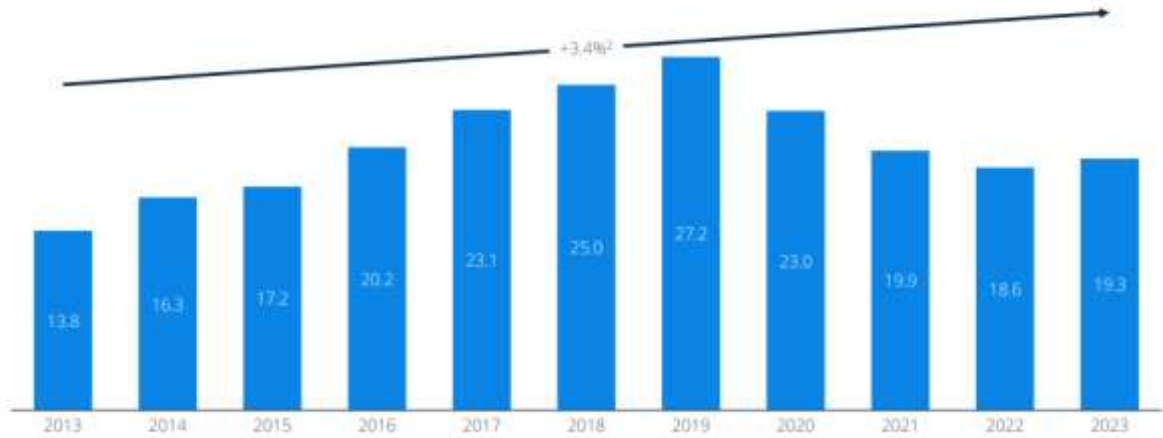
The above table is a depiction of Škoda Auto's Leverage or Solvency, and Efficiency factors. The conclusions drawn from the analysis for these factors also has already been discussed. This table also displays the data of the company Škoda Auto of last thirteen years (2007-19).

#### 4.19 Škoda Auto's Global Revenue and Impact of COVID-19

The global pandemic of COVID-19 has already impacted a lot in our economy. Due, to that revenue of the company Škoda Auto drastically fell already. The below analysis not also shows the revenue of Škoda Auto from the year 2013, but also it depicts the forecast of the company of the prospective years.

Figure 24 Škoda Auto's Revenue Worldwide

Škoda's passenger cars revenue<sup>3</sup> worldwide<sup>3</sup> in bnUS\$



Source: Škoda Report, 2020

Looking at the overall trend of the company, there is a 3.4 percent increase in the revenue of the Škoda. From 2013, there is upsurge every year, but the global pandemic of COVID-19 is going to be challenge for the company. However, the financial analysis of Škoda Auto could predict that the company will survive as it survived the 2008 global market crisis.

## 5. Results and Discussion

Horizontal Analysis and Vertical Analysis performed in the practical part has been very helpful to understand overall trends and pattern of the Balance Sheets of Škoda Auto for last 13 years. In the Horizontal Analysis, it can be noticed that after 2008, the company's total liabilities have been decreased. However, total assets of Škoda Auto is significantly higher than the total liabilities and it is a good sign as the company has enough equity.

Through vertical analysis, it can be observed that total liabilities of the company are more than total assets in the year 2008 which represents the influence of the 2008 global market crash. However, that ratio has been maintained significantly in the year 2009 by the company to survive the crisis. By this study, there could be a recommendation to be drawn out from this analysis, which is to observe the changes in the trends over years to make an efficient decision in future to easily survive COVID-19 pandemic influence.

To observe profitability of the company, operating profit margin, gross profit margin and net profit margin has been calculated and analysed in that practical segment. There are lots of hikes and falls in the profitability can be observed over years which is not good indicator. It is recommended that the profitability of the company should be increasing over years as the sales increases. However, several environmental factors are influencing a lot to the company. That means Škoda Auto should employ more efficient strategies to sustain the economic and environmental impact. Gross profit margin of the company is observed to be stable after the year 2009 and that is a good indicator. Net profit margin of Škoda Auto has also rise and falls over the years. However, linear trendline of the net profit margin depicts that the company's net profit margin is rising gradually and that is a good indicator for the company as well.

To observe liquidity of Škoda Auto, Current Ratio and Quick Ratio has been found and analysed. As per the Škoda Auto company's current ratio study, one may tell the company's liquidity is growing over the years. Via the quick ratio study, it can be claimed the business used its existing assets and short-term lending facilities inefficiently for the years 2016 and 2011. But since 2016, there are major changes in the quality of using the existing reserves and short-term funding services.

To study solvency of the company, interest cover ratio, debt equity ratio, equity ratio and equity to fixed asset ratio has been measured and analysed. It is unclear that the interest cover ratio is below 150. For certain years, the strain of the debt payments on Škoda Auto is larger. Other than the years 2016, 2017, and 2018, the interest cover ratio for the Škoda Auto is not enough. The business would do anything about 150 (1.5) to maintain it. The company's interest payments as per the year 2019 are not so fast. There is, indeed, a substantial change as opposed to the years before 2016.

For efficiency of the company, inventory turnover ratio, investment turnover ratio and asset turnover ratio has been studied and analysed. From the graph of the inventory turnover ratio of Škoda Auto, it is inferred that the control of their inventory productivity by the organization since 2014 is strong enough. It was, nevertheless, very poor inventory control until 2014. It is interesting to note the consistency of the Investment Turnover Ratio pattern from Škoda Auto after the year 2009. Which implies, thanks to the shock of the sagacity of 2008, the organization is very seasoned in running the business efficiently. The asset turnover ratio of Škoda Auto is quite constant across years. That means that the organization is excellent at generating sales from its assets for long. And, the upcoming technical advances will render things much more interesting.

The Hyundai Mobis shareholder value is still very large in terms of Škoda Automobile. That states that Hyundai is more likely to see a rate of growth in business earnings. However, regardless of organizational disparities, these automotive giants have too many common influences against each other. Therefore, the dichotomy is apparent. That's why researching different corporations' financial reports could be useful to every organization because they may analyse and make improvements to their existing method.



## 6. Conclusion

The company's sales cost is regularly increasing because of the technological advancements and high demand of the humankind. Nevertheless, the Inventories and Net Profit of the company is very much stable which is also a good sign. The relative changes of the assets, liabilities, inventories, cost of sales and net profit has no abnormality to be observed except the few crises happened which has already been discussed in the practical section.

By vertical analysis, total assets has been observed to be increasing every year except the year 2018; the company could have made some adjustments on that year because of the Chinese market demand crisis as China is a major market for the company Škoda Auto. However, no significant abnormality has been observed at the recent year 2019.

By profitability analysis, it is observed that the company's performance is profitable enough and the firm's ability to transform its sales into profits is good. Also, it can be said that the company is generating sufficient returns for its shareholders.

Knowing that the Škoda Car group is managing its current assets more effectively over the years is quite surprising. That means technical developments over the years have a huge effect on sustaining the viability of the product. Efficiency ratios of this study proves that the company is efficient in managing turnovers.

Debt Equity Ratio showed the client's resources and gross business obligations to the stockholder Škoda Car. It can be observed that the company has lower volume of debt funding by borrowers, compared with equity financing by shareholders. The higher ratio at 2008 suggests that if the debt amount is too big, the company receives more of its financing from raising capital which putting the business at risk. Until 2019 the equity ratio to real assets was relatively larger. That ensures the return on equity is higher now that it was before. On the other side, the Company's revenue level and net income level remain constant across the years. As a result, it can be assumed that the business is not at any financial disadvantage at present because of a strong debt or solvency.

Taking a look at just the company's overall trend, Škoda's sales increases by 3.4 per cent. Every year from 2013, the upsurge occurs, but the global COVID-19 pandemic will be a challenge for the business. Fortunately, Škoda Auto's financial analysis could predict that the firm would thrive as it endured the global market crisis of 2008.

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## 8. Appendix

(CZK million)

Table 9 2007-2013 Škoda Auto Data

Statement	2007	2008	2009	2010	2011	2012	2013
<b>Operating Profit</b>	19,784	13,620	5,924	11644	18,257	17,917	13,539
<b>Sales</b>	2,21,967	2,00,182	1,87,858	226426.6	2,52,562	2,62,649	2,68,500
<b>Profit before income tax</b>	19,860	13,376	4,702	10888.9	10,586	17,934	13,940
<b>Gross profit ratio</b>	14.3%	12.2%	8.7%	11.5%	12.9%	15.0%	14.0%
<b>Gross profit</b>	36,493	28,659	21,562	31676.8	29,220	40,898	40,041
<b>Cost of Sales</b>	1,50,258	1,71,523	1,66,296	1,89,260	2,52,562	2,21,751	2,28,459
<b>Net Profit</b>	15,982	10,818	3,462	8,839	16,075	15,354	11,832
<b>Current Assets</b>	58,014	59,014	62,439	59,293	88,871	76,493	83,867
<b>Current Liabilities</b>	34,807	37,155	37,155	36,661	49,904	50,999	63,028
<b>Inventories</b>	13,543	15,136	15,136	11,675	16,061	18,619	17,928
<b>EBIT</b>	19,860	13,376	4,702	10888.9	10,586	17,934	13,940
<b>Total Assets</b>	111650	1,11,395	1,18,376	1,35,736	1,53,557	1,59,986	1,73,584
<b>Total Liabilities</b>	88,179	1,22,456	33,493	45,484	69080	51,896	47,603
<b>Shareholder's Equity</b>	71,721	70,005	68,519	74,772	81,211	88,302	90,316
<b>Investment Ratio</b>	4.9%	5.6%	5.40%	4.60%	5.60%	8.00%	7.00%
<b>Equity Ratio</b>	57.90%	58.50%	57.60%	54.00%	52.90%	62.50%	59.40%
<b>Equity to fixed asset ratio</b>	118.1%	119.3%	114.3%	126.2%	124.8%	108.2%	102.7%
<b>Operating Profit</b>	9.0%	6.7%	2.8%	5.4%	7.4%	7.1%	5.1%
<b>Interest Expenses</b>	563.00	518.00	480.00	483.00	531.00	468.00	625.00

Source: Calculated from Škoda annual report, 2007-13

Table 10 2014-2019 Škoda Auto Data

Statement	2014	2015	2016	2017	2018	2019
<b>Operating Profit</b>	21,598	35154	30892	40531	33840	37220
<b>Sales</b>	2,99,318	3,14,897	3,47,987	4,07,400	4,16,695	4,59,122
<b>Profit before income tax</b>	21349	34,238	30,849	39,125	35,131	38,498
<b>Gross profit ratio</b>	14.8%	14.8%	15.2%	14.7%	13.7%	13.5%
<b>Gross profit</b>	44374	46,713	52,755	59,881	57,274	62,036
<b>Cost of Sales</b>	254994	2,68,184	2,95,232	3,47,519	3,59,421	3,97,086
<b>Net Profit</b>	18,421	30,816	25,163	31,841	28,892	31,689
<b>Current Assets</b>	71,730	94,961	123,342 9	1,44,184	1,00,447	1,00,111
<b>Current Liabilities</b>	58,461	66,192	72,166	1,16,623	88,058	1,07,139
<b>Inventories</b>	12,326	15115	16093	17,614	20,211	24,863
<b>EBIT</b>	21,349	34,238	30,849	39,125	35,131	38,498
<b>Total assets</b>	1,76,869	2,02,615	2,28,180	2,50,859	2,19,318	2,41,635
<b>Total Liabilities</b>	76,868	85,133	90,600	133375	107644	1,32,009
<b>Shareholder's Equity</b>	1,00,001	1,17,482	1,37,580	1,17,484	1,11,674	1,09,626
<b>Investment Ratio</b>	6.4%	5.0%	4.2%	4.6%	5.4%	7.0%
<b>Equity Ratio</b>	56.5%	58.0%	60.3%	46.8%	50.9%	45.4%
<b>Equity to fixed asset ratio</b>	95.1%	109.1%	131.1%	110.1%	93.9%	77.5%
<b>Operating Profit</b>	7.2%	11.2%	8.9%	9.9%	8.1%	8.1%
<b>Interest Expenses</b>	220.00	456.00	196.00	179.00	230.00	277.00

Source: Calculated from Škoda annual report, 2014-19

Table 11 2019 Škoda Auto and Hyundai Mobis Data

Statement	Skoda (2019) (CZK Million)	HYUNDAI MOBIS CO., LTD. (2019) (CZK Million)
<b>Operating Profit</b>	37,220.00	31,272
<b>Profit before income tax</b>	38,498.00	47,036.80
<b>Gross profit</b>	62,036.00	67,696.60
<b>Cost of Sales</b>	3,97,086.00	3,53,545.75
<b>Net Profit</b>	31,689.00	35,476.73
<b>Current Assets</b>	1,00,111.00	2,74,870.57
<b>Current Liabilities</b>	1,07,139.00	98,211.02
<b>Inventories</b>	24,863.00	23,370.44
<b>EBIT</b>	38,498.00	47,036.80
<b>Total assets</b>	2,41,635.00	5,54,461.02
<b>Total Liabilities</b>	1,32,009.00	1,17,214.71
<b>Shareholder's Equity</b>	1,09,626.00	4,37,237.97
<b>Interest Expenses</b>	277.00	356.50

Source: Calculated from Škoda annual report and Hyundai Mobis annual report, 2019