

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Bachelor Thesis

Economic analysis of BYD company limited

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BACHELOR THESIS ASSIGNMENT

Mengyu Wang

Business Administration

Thesis title

Economic analysis of BYD company limited

Objectives of thesis

BYD Company Limited is one of the top ten automobiles listed in China and has a certain leading position in China. BYD Company Limited is one of the top ten automobiles listed in China and has a certain leading position in China. It has more than 30 industrial parks at home and abroad, realizing the strategic layout of the world's six continents. At the same time, it is also the world's first car company with three core technologies of energy vehicles: battery, motor and electric control. The annual production and sales of more than 560,000 (2018).

The objectives of this diploma thesis are the following: analyzing the overall financial status from 2015 to 2019. Different economic analysis means can be used to study the governance of the company, for example, analyzing and comparing competitors, looking for potential competitive threats and new competitive opportunities; Investigate the factors that can influence the company or industry from different aspects; Make suggestions to adjust the future development of the company.

The first part of the diploma thesis is the theoretical part, including the analysis of professional literature on economy, as well as economic elements; Definition of economic analysis tools and reasons why they are used. The second part is practical part, the calculation and discussion results of selected data from 2015 to 2019 are demonstrated. We will use SWOT analysis, PEST analysis and other analytical methods to comprehensively understand the company's operating conditions.

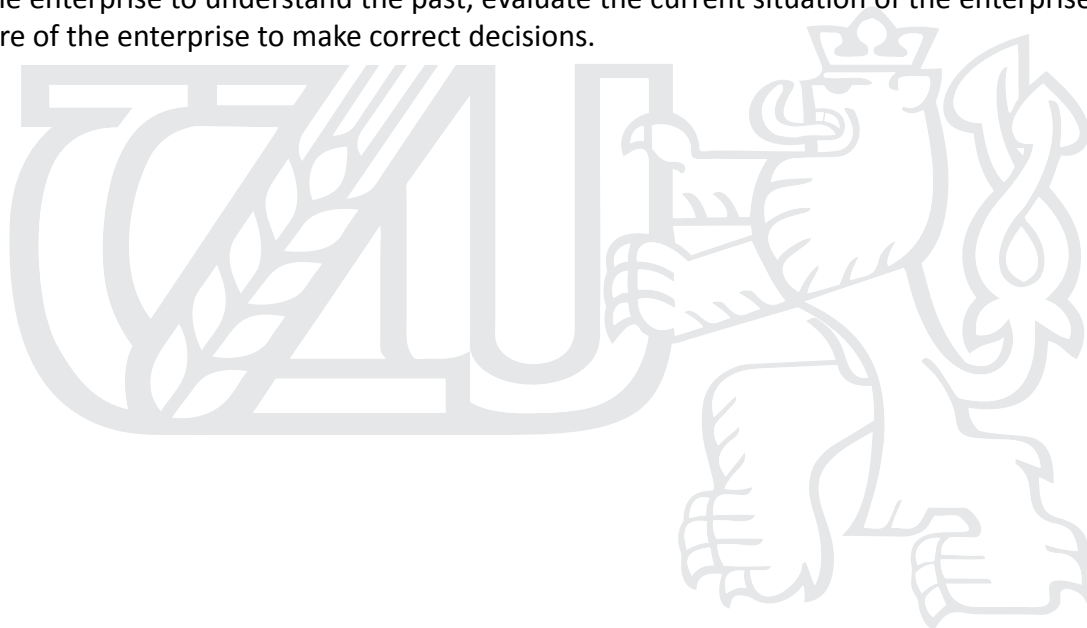
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Methodology

In this paper, we will use the method of financial analysis to analyze the problems of this company. Financial analysis is based on accounting and reporting data and other related data as the basis, using a series of special analysis technology and method, to the enterprise and other economic organizations in the past and present relevant financing activities, investment activities, business activities, distribution activities

the profitability, operation ability, solvency and growth capacity situation carries on the analysis and evaluation of the economic management activities. It is an economic applied discipline that provides accurate information or basis for the investors, creditors, operators and other organizations or individuals who care about the enterprise to understand the past, evaluate the current situation of the enterprise, and predict the future of the enterprise to make correct decisions.



The proposed extent of the thesis

30

Keywords

New clean energy vehicles, Economic analysis, Financial analysis, PEST, SWOT

Recommended information sources

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- Wang Ji, P. 2020. Group control. China Renmin University Press. 315p. ISBN 9787300279299

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Declaration

I declare that I have worked on my bachelor thesis titled " Economic analysis of BYD company limited" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

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Economic analysis of BYD company limited

Abstract

In recent years, due to environmental pollution, air quality has become worse, resulting in the destruction of the ecological environment, animal and plant species on the verge of extinction; but also caused global warming. Therefore, people advocate the concept of clean energy, conservation, and environmental protection. The emergence of vehicles on the basis of new technologies of power unit is focused on the vehicles with traditional fuel, which can save fuel consumption, improve air quality, and make people travel more environmentally friendly and low-carbon.

As the leader of the new clean energy vehicle industry, BYD Company's development trend always have had attracts people's attention. Therefore, we can study this company to understand and predict the development status of the industry and the enterprise. For an enterprise that wants to have a good development, its management and operation are crucial. High-quality financial analysis can help enterprise managers to obtain financial information in time, find out the loopholes, and find out the problems in financial management. In this thesis, I collected the data and, on the basis of enterprise financial strategy and its analysis, I tried to design some prospective economic predictions for the future. Through this financial analysis, there is possible to understand the general situation and future development of BYD Company and its new clean energy vehicle industry.

Keywords: New clean energy vehicles, Economic analysis, Financial analysis, PEST, SWOT

Ekonomická analýza společnosti BYD s.r.o.

Abstrakt

V posledních letech se v důsledku znečištění životního prostředí zhoršila kvalita ovzduší, což mělo za následek destrukci ekologického prostředí, živočišných a rostlinných druhů na pokraji vyhynutí; ale také způsobilo globální oteplování. Lidé proto prosazují koncept čisté energie, ochrany a ochrany životního prostředí. Vznik vozidel na základě nových technologií pohonné jednotky je zaměřen na vozidla s tradičním palivem, která mohou ušetřit spotřebu paliva, zlepšit kvalitu ovzduší a přimět lidi cestovat ekologičtěji a s nízkými emisemi uhlíku.

Jako vůdce nového automobilového průmyslu s čistou energií, vývojový trend společnosti BYD vždy přitahoval pozornost lidí. Proto můžeme studovat tuto společnost, abychom pochopili a předvíдали vývojový stav odvětví a podniku. Pro podnik, který chce mít dobrý vývoj, je zásadní jeho správa a provoz. Vysoce kvalitní finanční analýza může podnikovým manažerům pomoci získat včas finanční informace, zjistit mezery a zjistit problémy ve finančním řízení. V této bakalářské práci jsem shromáždil údaje a na základě podnikové finanční strategie a její analýzy jsem se pokusil navrhnout několik perspektivních ekonomických předpovědí pro budoucnost. Prostřednictvím této finanční analýzy je možné pochopit obecnou situaci a budoucí vývoj společnosti BYD a jejího nového odvětví vozidel s čistou energií.

Klíčová slova: Nová vozidla s čistou energií, Ekonomická analýza, Finanční analýza, PEST, SWOT

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List of abbreviations

BYD	BYD Company Limited
BAIC	BAIC Motor Co. Ltd
EBIT	Earning Before Interest & Tax
EBITDA	Earning Before Interest, Taxes, Depreciation & Amortization
GDP	Gross Domestic Product
ROA	Return on assets
ROA	Return on assets

1 Introduction

Global warming is a phenomenon related to nature. It is due to the continuous accumulation of greenhouse effect, which leads to the imbalance between the absorption and emission of energy in the earth-atmosphere system. The energy keeps accumulating in the earth-atmosphere system, which leads to the rise of temperature and the global warming.

When people burn fossil fuels, such as oil, coal and so on, or cut down forests and burn them, a large amount of carbon dioxide, that is, greenhouse gas, is produced. Global warming is caused by the greenhouse effect caused by greenhouse gases.

New energy vehicles refer to vehicles with advanced technical principles, new technologies and new structures that use unconventional vehicle fuels as power sources (or use conventional vehicle fuels and adopt new on-board power devices) and integrate advanced technologies of vehicle power control and drive. The emergence of new energy vehicles once again gives us hope that it can reduce fuel emissions and slow down global warming to a certain extent. Greatly reduce the pollution to the environment.

Under the condition of high energy consumption and high pollution in the traditional fuel auto industry, new energy vehicles are not only energy saving and pollution is small, easy to operate, is the most ideal choice for the majority of consumers.

In the new energy vehicle industry, BYD Company is the most representative and research significance in China. BYD is short for Build Your Dreams, which stands for dream and means that BYD uses technological innovation to meet people's yearning for a better life. Founded in 1995, BYD Company Limited (stock code: 1211.HK) was listed on the main board of Hong Kong on July 31, 2002. Shenzhen city, Guangdong province, China is the headquarters of the Company. It is a high-tech private enterprise with three industrial clusters of IT, automobile and new energy. BYD production base covers a total area of nearly 7 million square meters, in Guangdong, Beijing, Shanghai, etc., and in many

places with branches or offices, such as the United States, Europe and China Taiwan, Hong Kong, the total number of employees is nearly 200,000.

At the beginning of 2020, a sudden outbreak of the epidemic has had a significant impact on China's economy and industry. In the face of economic pressure at the same time, BYD fully invested in the epidemic prevention and control campaign, fully support the fight against the epidemic, travel social responsibility, stick to the first line, the first time to donate money and materials to help the epidemic prevention and control frontline medical staff.

2 Objectives and Methodology

2.1 Objectives

BYD Company Limited is one of the top ten automobiles listed in China and has a certain leading position in China. BYD Company Limited is one of the top ten automobiles listed in China and has a certain leading position in China. It has more than 30 industrial parks at home and abroad, realizing the strategic layout of the world's six continents. At the same time, it is also the world's first car company with three core technologies of energy vehicles: battery, motor and electric control. The annual production and sales of more than 560,000 (2018).

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2.2 Methodology

2.2.1 Financial analysis

2.2.1.1 Solvency analysis

In this paper, we will use the method of financial analysis to analyze the problems of this company. Financial analysis is based on accounting and reporting data and other related data as the basis, using a series of special analysis technology and method, to the enterprise and other economic organizations in the past and present relevant financing activities, investment activities, business activities, distribution activities the profitability, operation ability, solvency and growth capacity situation carries on the analysis and evaluation of the economic management activities. It is an economic applied discipline that provides accurate information or basis for the investors, creditors, operators and other organizations or individuals who care about the enterprise to understand the past, evaluate the current situation of the enterprise, and predict the future of the enterprise to make correct decisions.

Debt paying ability refers to the ability of an enterprise to repay its due debts. The analysis of debt paying ability can examine the ability and risk of the enterprise, which is helpful for the prediction of the future income of the enterprise. Corporate debt paying ability includes short-term debt paying ability and long-term solvency. Short-term solvency refers to the degree of guarantee that an enterprise can repay current liabilities timely and in full with current assets.

The short-term solvency of an enterprise depends on the ratio and quality of current assets and current liabilities.

Current ratio	$=\text{Current assets} / \text{Current liabilities}$	1
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Current ratio is the ratio of current assets to current liabilities, which is used to reflect the strength of short-term debt paying ability.

Quick ratio	$=\text{(Current assets} - \text{Inventory)} / \text{Current liabilities}$	2
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Among current assets, inventory is the slowest to be realized. Therefore, in order to better measure the solvency of enterprise's current liabilities, the inventory is removed from the current assets to form quick assets.

Structural liquidity ratio	= Every single current asset / Total current assets	3
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Quick ratio also has limitations, mainly because quick assets still include accounts receivable, various prepayments and prepaid expenses. The liquidity of these assets is also relatively poor, which will further weaken the short-term solvency of enterprises. So it is more important to understand the proportion of each current asset in the total amount of current assets.

Long-term solvency refers to the ability of an enterprise to repay long-term debt. The financial ratios reflecting the long-term solvency of an enterprise mainly include debt ratio, equity ratio, equity multiplier, debt-equity ratio, debt to tangible assets ratio, interest protection multiple, cash coverage ratio, etc.

Assets debt ratio	=Total liabilities / Total assets	4
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Assets debt ratio is the comprehensive ability that reflects the debt repayment ability of an enterprise. The higher the ratio, the worse the company's ability to service its debt; Conversely, the ability to repay debt is stronger.

Shareholder equity ratio	= Total of shareholder's equity / Total assets	5
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Shareholder's equity ratio reflects how much of an enterprise's assets are invested by the owner. If the shareholder's equity ratio is too small, it indicates that the enterprise is over debt, which is easy to weaken the ability of the company to resist external shocks; if shareholder's equity ratio is too large, it means that the enterprise does not actively use the financial leverage to expand the economic scale.

The reciprocal of the shareholders' equity ratio is the equity multiplier, which directly reflects the magnifying effect of shareholders' equity on assets.

Debt-Equity ratio	=Total liabilities / Total of shareholder's equity	6
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Debt-equity ratio reflects the comparative relationship between the funds provided by creditors and shareholders. Therefore, it can reveal the financial risk of enterprises and the degree of protection of shareholders' equity on debt.

Debt to tangible assets ratio	= Total liabilities / (Shareholder's equity – Total of other assets & intangible assets)	7
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Because shareholders' equity is the net assets of assets after deducting liabilities, in order to further analyze the protection degree of shareholders' equity on liabilities, intangible assets can be deducted from the net assets of denominator. In this way, we can calculate debt to tangible assets ratio.

Interest Protection Multiply	= EBIT / interest expenses	8
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Interest Protection Multiple is an important index to measure the ability of an enterprise to pay debt interest. EBIT(Earning Before Interest & Tax) refers to the profit before deducting the income tax of interest expense, EBIT is equal to the sum of net profit, interest expense and tax.

Cash coverage ratio	= EBITDA / interest expenses	9
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Cash coverage ratio is a measure of the relationship between corporate cash generation capacity and debt interest repayment burden. EBITDA (Earning Before Interest, Taxes, Depreciation & Amortization).

EBIT is mainly used to measure the profitability of the enterprise's main business, EBITDA is mainly used to measure the ability of the enterprise's main business to create cash flow.

2.2.1.2 Operation ability analysis

Operating ability refers to the efficiency of the use of funds of the enterprise, which indicates the ability of the management personnel of the enterprise to use funds, operate and manage. It is mainly reflected in the indicators related to the speed of capital turnover.

Total assets turnover ratio	= Total revenue / Average total assets	10
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Total assets turnover ratio is an important index to comprehensively evaluate the operation quality and utilization efficiency of all assets of an enterprise. The higher the turnover rate, the faster the turnover of total assets, reflecting the stronger sales ability.

Total assets turnover ratio	= Current asset turnover / Current assets as a proportion of total assets	11
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Among all assets, current assets have the fastest turnover speed, so the turnover speed of total assets is greatly affected by the turnover speed of current assets. From the relationship between the velocity of total assets and the velocity of current assets, we can determine the factors that affect the turnover of total assets.

Inventory turnover ratio	= Cost of sells / average inventory	12
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Inventory turnover includes the number of times that the enterprise can use the capital turnover in a certain period of time.

Receivables turnover ratio	= Net income from credit sales / Average balance of accounts receivable	13
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The rapid recovery of accounts receivable can not only save money, but also show that the credit status of enterprises is good and bad debt loss is not easy to occur. It is generally believed that the higher the turnover rate, the better.

Operation cycle	= Days of deposit turnover / Accounts receivable turnover days	14
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Operation cycle refers to the period from the beginning of obtaining inventory to the end of selling inventory and recovering cash. The length of operation cycle depends on the days of inventory turnover and accounts receivable turnover.

2.2.1.3 Profitability analysis

Profitability refers to the ability of enterprises to obtain profits, also known as the capital or capital appreciation ability of enterprises. It usually shows the amount and level of enterprise income in a certain period. Profitability is the concern of all stakeholders in an enterprise, and it is also the key to the success or failure of an enterprise.

Gross Profit Margin	= [(Sales revenue - Cost of sales) / Sales revenue] * 100%	15
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Gross Profit Margin reflects the initial profitability of product sales and is the starting point of net profit. Compared with the same industry, if the gross profit margin of the enterprise is significantly higher than that of the same industry, it indicates that the

enterprise has high added value and high product pricing, or has cost advantage and competitiveness compared with the same industry.

Sales profit rate	= Net margin / Sales revenue*100%	16
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The higher the ratio of sales net profit margin, the more value the enterprise creates for the society and the greater its contribution.

Ratio of profits to cost	= Total profits / Total cost *100%	17
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Ratio of profits to cost is an indicator that reflects the relationship between the expenditures incurred in the production and operation of the enterprise and the benefits obtained.

ROA	=Net income / Average total assets	18
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ROA(return on assets) is an index reflecting the comprehensive utilization rate of enterprise assets and an important index to measure the profitability of an enterprise by using the total amount of creditors and all rights and interests. (Xiao Wan, 2018, p138)

2.2.2 PEST Analysis

PEST analysis refers to all the macro factors that affect industries and enterprises. It analyzes the macro environmental factors. Different industries and enterprises will analyze different contents according to their own characteristics and business needs. At the same time, it is a basic tool for strategic external environment analysis. It grasps the macro environment from the political, economic, social and technological perspectives, and evaluates the influence of these factors on the strategic objectives and formulation of enterprises. (Xiao Wan, 2018, p138)

1. Political

Political elements refer to political forces and relevant laws, regulations and other factors that have actual and potential influence on organizational business activities. When the political system and system and the government's attitude to the business of the organization change, and when the government issues the laws and regulations that have

binding force on the operation of the enterprise, the business strategy of the enterprise must be adjusted accordingly. (Xiao Wan, 2018, p138)

The main influencing factors are as follows:

- 1) The relationship between enterprises and government;
- 2) Environmental protection law;
- 3) The diplomatic situation;
- 4) Industrial policy;
- 5) Patent law;
- 6) Government expenditure;
- 7) Government budget, and other government regulations;

The political and legal variables that are important to corporate strategy are:

- 1) Special tariffs;
- 2) Number of patents;
- 3) Government procurement scale and policies;
- 4) Import and export restrictions;
- 5) The amendment of the tax law;
- 6) Amendments to the patent law;
- 7) Revisions and Labor protection law;
- 8) Amendments to the company law and the contract law;
- 9) Fiscal and monetary policies;

2. Economic factors

Economic factors refer to a country's economic system, economic structure, industrial layout, resource conditions, economic development level, and future economic trends. The key elements of the economic environment include the change and development trend of GDP, the level of interest rate, the degree and trend of inflation, the unemployment rate, the level of disposable income of residents, the level of exchange rate, the cost of energy supply, the perfection of market mechanism, the situation of market demand and so on. As enterprises are micro individuals in the macro environment, the economic environment determines and influences the formulation of their own strategies. Economic globalization also brings economic interdependence between countries. Enterprises also need to pay attention to, search, monitor, forecast and evaluate the

economic situation of other countries outside their own countries in the process of strategic decision-making. (Xiao Wan, 2018, p145)

3. Society

Social factors refer to the national characteristics, cultural traditions, values, religious beliefs, education level and customs of the members of the society where the organization is located. Social factors refer to the national characteristics, cultural traditions, values, religious beliefs, education level and customs of the members of the society where the organization is located. The elements of social environment include population size, age structure, ethnic structure, income distribution, consumption structure and level, population mobility, etc. The population size directly affects the market capacity of a country or region, and the age structure determines the types of consumer goods and promotion methods.

Every society has its core values, which often have a high degree of sustainability. These values and cultural traditions are the precipitation of history, spread and continue through family reproduction and social education, so they have considerable stability. And some sub values are relatively easy to change. Natural environment refers to the geographical, climatic, resource, ecological and other environment in which the business of an enterprise involves the regional market. Due to the different natural environment, enterprises in different regions will have a certain degree of influence on enterprise strategy. (Xiao Wan, 2018, p145)

4. Technological factors

Technological elements not only include those inventions that cause revolutionary changes, but also include the emergence, development trend and application prospect of new technologies, new processes and new materials related to enterprise production. In the past half century, the most rapid changes have taken place in the field of technology. The rise of high-tech companies such as Microsoft, HP and General Electric has changed the world and the way of human life. Similarly, non-profit organizations such as hospitals and universities with advanced technology are more competitive than those without advanced technology. (Xiao Wan, 2018, p145)

2.2.3 SWOT Analysis

SWOT analysis is the situation analysis based on the internal and external competitive environment and competitive conditions. It is to list the main internal strengths, weaknesses and external opportunities and threats closely related to the research object through investigation, and arrange them in the form of matrix. Then it uses the idea of system analysis to match various factors and analyze them, from which a series of corresponding countermeasures are obtained Conclusion, which is usually decision-making. Using this method, we can make a comprehensive, systematic and accurate study of the situation of the research object, and then formulate the corresponding development strategies, plans and countermeasures according to the research results. (Xiao Wan, 2018, p145)

1. Strengths and Weaknesses analysis

Because the enterprise is a whole, and because of the extensive sources of competitive advantage, we must make a detailed comparison between the enterprise and its competitors from each link of the whole value chain. Such as whether the product is novel, whether the manufacturing process is complex, whether the sales channel is smooth, and whether the price is competitive. If the advantages of an enterprise in one or more aspects are the key success factors that an enterprise in the industry should have, then the enterprise's comprehensive competitive advantage may be stronger.(Xiao Wan, 2018, p145)

Strengths are the internal factors of an organization, including: favorable competitive situation; sufficient financial resources; good corporate image; technical strength; economies of scale; product quality; market share; cost advantages; advertising offensive, etc.

Weaknesses are also the internal factors of the organization, including: aging equipment; disordered management; lack of key technologies; backward research and development; shortage of funds; poor management; overstock of products; poor competitiveness, etc

2. Opportunity and Threats analysis

For example, the current popular threat of piracy in society: pirated substitutes limit the maximum price of the company's products. Substitutes not only threaten the company, but also may bring opportunities. Enterprises must analyze whether the substitutes bring "disaster" to the company's products or services, or provide higher profits or value; the transfer cost of buyers turning to buy substitutes; what measures the company can take to reduce costs or increase added value to reduce the risk of consumers buying pirated substitutes. (Xiao Wan, 2010, p145)

Opportunities are the external factors of an organization, including new products, new markets, new demands, the removal of barriers in foreign markets, and the failure of competitors.

Threats are also the external factors of the organization, including: new competitors; the increase of alternative products; market tightening; changes in industrial policies; economic recession; changes in customer preferences; emergencies, etc.

3 Literature Review

3.1 Company

3.1.1 Concept of company

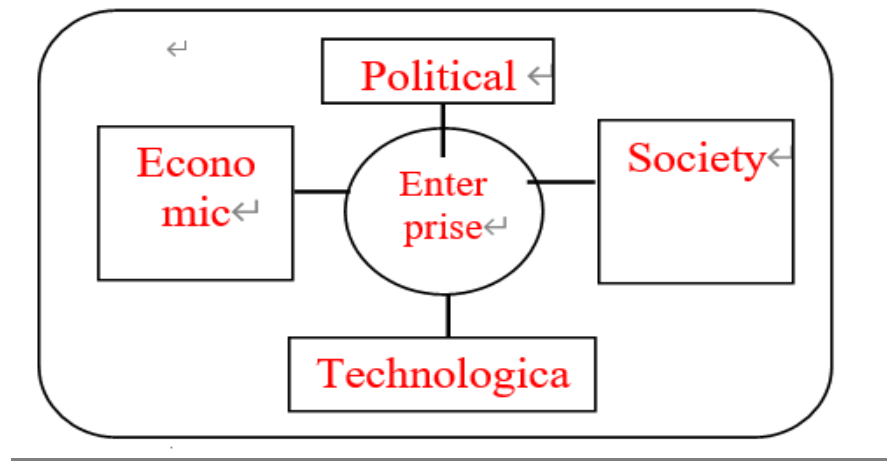
Company is a legal entity representing an association of people, whether natural, legal or a mixture of both, with a specific objective. (Pride, William M.; Hughes, Robert J.; Kapoor, Jack R. 1985). Because of the different national system, the environment of the company is different. The definition of a company is different in every country.

A corporation is an organization of a business. A profit-making association as a legal person. (Wang JiPeng , 2020 p. 23)

The modern corporation is a system within the national economic system. Its input and production are inseparable from the huge national economic system. The factors of production it needs are invested in it by various sectors of the national economy, and the products it produces need to be exported to other sectors. Therefore, we can see that the national economic system is the external environment of the enterprise system, and it is a factor that enterprises can not control. The internal conditions of a company are factors that the company itself can control. When the external environment of the company changes, the company can adapt to this change by changing the internal conditions to ensure that the established business objectives are achieved. (Wang JiPeng, 2020 p.12)

3.1.2 Environment of company

The enterprise environment includes two parts: external environment and internal environment. The external environment of the enterprise is composed of variables that exist outside the organization and are usually not controlled by the senior managers in the short term. The internal environment of an enterprise is composed of the variables that exist in the organization and are usually not controlled by the senior management in the short term, including the organizational structure, culture and resources of the enterprise. (Chen Zhipeng, 2014 p.33)



(Source: Feng Junhua . Introduction to Business Management. Chemical Industry Press 2006 :p33)

External environment of enterprise External environment of enterprise is the general name of the external political environment, social environment, technical environment, economic environment, etc. Among them, political environment refers to national policies, laws and regulations, and the development of domestic and foreign political situation. Social environment refers to population, residents' income or purchasing power, residents' educational level, etc. Technical environment refers to the level and development trend of science and technology related to the industry; The economic environment includes the macro-economic situation, the world economic situation, the position of the industry in the economic development and the direct market of the enterprise. Among them, the direct market of an enterprise is the most closely related and most influential environmental factor. Specifically including sales market, supply market, capital market, labor market, etc. (Chen Zhipeng, 2014 p.33)

The enterprise internal environment refers to the sum of the material and cultural environment inside the enterprise, including the enterprise resources, enterprise ability, enterprise culture and other factors, also known as the enterprise internal conditions. That is, a shared value system within the organization, including the guiding ideology, management philosophy and work style of the enterprise. The internal environment of an enterprise is the combination of the internal conditions and atmosphere conducive to the normal operation of an enterprise and the realization of the profit goal of an enterprise. It is composed of the entrepreneurial spirit, the material basis of an enterprise, the organizational structure of an enterprise, and the corporate culture. The four elements are interrelated, influence and interact with each other to form an organic whole. Among them,

entrepreneurship is the generator of internal environment, material foundation and organizational structure constitute the internal hard environment, corporate culture is the internal soft environment. The formation of enterprise internal environment is an evolution process from low level to high level and from simple to complex. The goal of enterprise internal environment management is to create a favorable internal conditions and internal atmosphere for improving enterprise competitiveness and realizing enterprise profit goal. (Chen Zhipeng, 2014 p.33)

3.2 Economic analysis

3.2.1 Concept of economic analysis

An company's own economic analysis can be explained as monitoring a particular economic entity, phenomenon or process, decomposing it into individual elements, and scrutinizing and evaluating it in detail to determine how to improve it. This process may include other activities such as synthesis, specific mathematical statistical methods, assessment methods, etc. Economic analysis in this concept can be focused on an enterprise of any scale, on a plant, or on individual in-house departments. It does not have to deal only with the financial activity of these units, but it can also switch to a technical analysis in which it will use non-economic indicators. An essential part of the analysis is the assessment of the current state of the company. Therefore, the economic analysis can be all the activities and results of the entire business, or only its particular parts, activities or processes. (Synek, 2007, p7)

Economic analysis refers to the research activities that take various economic theories as the basis, take various basic data as the basis, use various indicators and models to analyze and study the economic dynamics and the effects produced in a certain period, find out the rules and point out the development direction.

At the same time, economic analysis can be divided into macro analysis and micro analysis according to the scope of analysis objects

3.2.2 Purpose of economic analysis

Economic analysis plays an important role in helping to improve and perfect the economic benefits of enterprises and improve the financial status of enterprises. It can let

the non-enterprise personnel who are interested in understanding the financial status of the company to understand the real situation of the company.

3.3 Financial analysis

3.3.1 The meaning of financial analysis

Financial analysis is a process of analyzing and evaluating the financial status, operating results and future development trend of listed companies based on the financial report data of listed companies and other basic information. The final result is to provide corresponding financial information for enterprise managers, including financial managers. It can be said that financial analysis plays a very important role in the financial part of the enterprise and the whole enterprise group, which escorts the development of the enterprise.

3.3.2 Sources of financial analysis

Financial statements are based on daily accounting data and are regularly prepared in accordance with the prescribed format, content and method, and form written documents to fully reflect the financial status of the company at a specific point in time, as well as the status of operating results and cash flow in specific period.

A complete set of financial statements generally include the balance sheet, income statement, cash flow statement, statement of changes in shareholders' equity and related statements notes. Among them, the balance sheet, income statement and cash flow statement are known as the three major financial statements provided by enterprises. These three tables reflect the financial position, operating results and cash flow of enterprises from different perspectives. A set of financial statements is the final result of accounting processing and Outlines the whole face of an enterprise from the financial point of view.

The balance sheet is an accounting statement that reflects the financial status of the assets, liabilities and owners' equity of an enterprise on a specific date. On the left side of the statement are assets. Asset refers to the economic resources owned or controlled by an enterprise, which can be measured in monetary terms and can bring benefits to the enterprise in the future. The top right side of the statement is liabilities. Liability is the current obligation formed by the past transactions and events of the enterprise, and the fulfillment of the obligation is expected to lead to the outflow of economic benefits.

In an account balance sheet, the sum of all items of assets equals the sum of all items of liabilities and owners' equity. That is, the balance between the left and right sides of the balance sheet is equal to assets = liabilities + owners' equity.

The income statement is a statement reflecting the operating results of an enterprise in a certain accounting period, showing the business process of the enterprise and profit and loss reasons. The income statement will be three main factors, namely, income, expenses, profit according to the form of "income - cost = profit", therefore, according to the income statement provides information, corporate profits can be analyzed, and the extent of the enterprise to achieve its profit purposes and ability, and can predict enterprise profit in a certain period of future trends and profitability.

The statement of cash flow is based on the cash basis of income and payment, reflecting the inflow and outflow of cash and cash equivalents in a certain accounting period. Through the cash flow statement, users can understand and evaluate the ability of an enterprise to obtain cash and cash equivalents, predict the future cash flow of an enterprise and its changes, and evaluate the liquidity and solvency of an enterprise. (Xiao Wan, 2010,p138)

3.3.3 Users of financial analysis

The users of financial statement analysis are divided into internal users and external users. Internal users include the board of directors, general manager, departments and investors of the company; External users include: investors, creditors, governments and related institutions, etc.

Because users have different goals for corporate financial analysis, they will put forward different demands for financial statements information from their own interests, so they will have different focus and perspectives for corporate financial information. For the users can deepen the understanding of the company and improve the level of decision-making.

Typical users of the economic analysis are:

Managements ---- Perform financial analysis to improve financial decisions and measure the results of their operations.

Investors ---- Investors are natural and legal persons who invest cash to purchase certain assets with the expectation of obtaining interests or profits. They use the financial statements to decide whether to continue to invest in the business.

Creditor ---- A creditor refers to a borrower or supplier of a bank or other financial institution. They gave the company loans or provided inventory materials and equipment for the company. As creditors, they are most concerned about whether they can obtain the loan principal and interest and receive payment in time. In order to decide whether to give a loan to an enterprise, we should analyze the reward and risk of the loan; in order to understand the short-term solvency of the debtor, we should analyze its liquidity.

Supplier ---- A supplier is an enterprise or individual that supplies various resources to an enterprise and its competitors, including raw materials, equipment, energy, labor and capital.

The government and related institutions ---- To understand the enterprise tax situation through financial analysis; to comply with government regulations and market order; the income and employment status of employees.

Employees and Trade Unions ---- Through analysis, it is necessary to judge whether the enterprise's profits are compatible with employees' income, insurance and welfare.

Intermediaries ---- Certified public accountants can determine the focus of the audit through financial statement analysis.

4 Practical Part

4.1 Company Profile

4.1.1 Basic information

BYD Company Limited is one of the largest automobile companies in China. The company was founded in 1995 and listed in Hong Kong on July 31, 2002. It is a high-tech enterprise with IT automobile and new energy industries. And BYD has been adhering to the independent brand, independent research and development, independent development of the development model. As the leader in electric vehicles and the global leader in rechargeable batteries, BYD has the key to the success or failure of electric vehicles -- the core technology of electric trams. Therefore, the company's new energy vehicle sales can reach the first in the world for four consecutive years and the first in China for five consecutive years.

Company name in Chinese: 比亚迪股份有限公司

Company abbreviation in Chinese: 比亚迪汽车

Company name in English : BYD Company Limited

Stock abbreviation: BYD Automobile

Stock Code: 01211, 002594

Listed on: Shenzhen Stock Exchange

Legal representative: Wang ChuanFu

Registered address: No.1,Yan'an Road, Kuiyong street, Dapeng New District, Shenzhen

Post code of the registered address :518119

Office address: No.3009, BYD Road, Pingshan District, Shenzhen

Post code of the office address: 518118

Website: <https://www.byd.com/cn>

Email address: db@byd.com

Type: private-owned Industry Automotive

Founded:1995

Headquarters: Shenzhen, China

4.1.2 Executive bodies

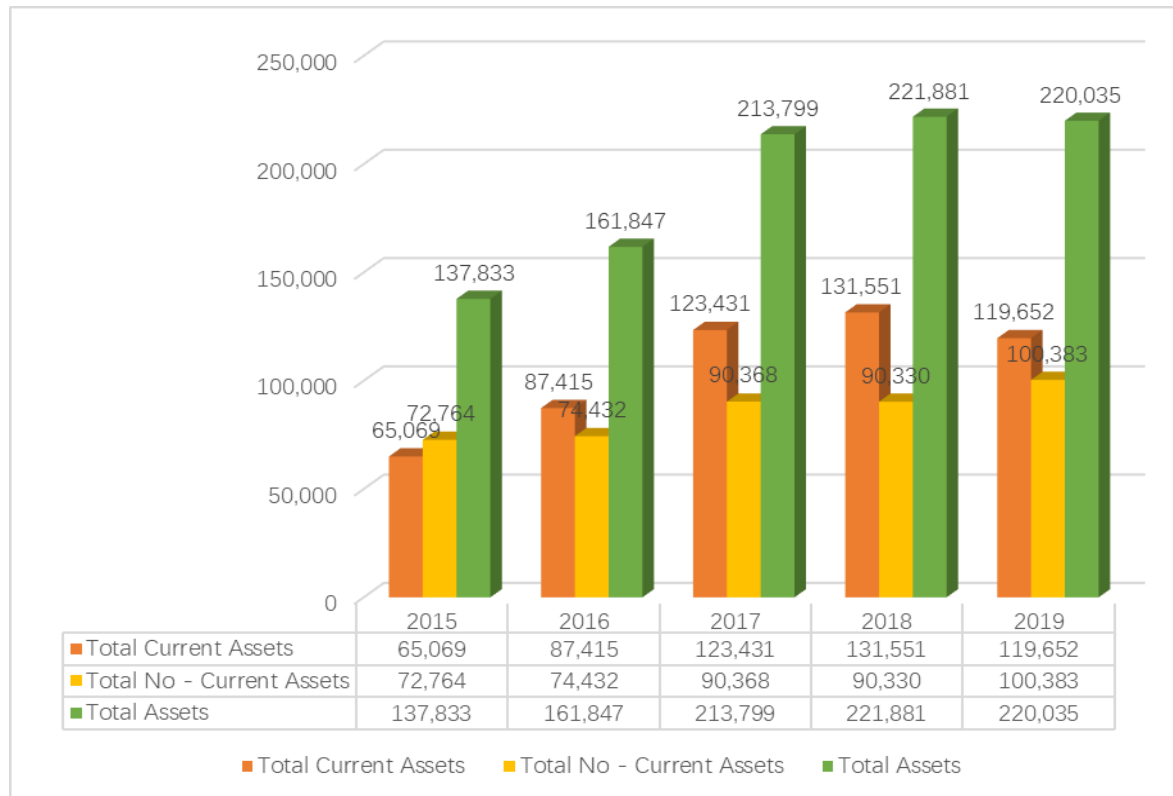
The main business of the company can be divided into automotive and related products (traditional fuel vehicles and new energy vehicles), mobile phone components and assembly services, rechargeable batteries and photovoltaic, and other businesses (including urban rail transit). Among them, new energy vehicles have established a leading market position. The company has cutting-edge dual-mode DM technology to support its plug-in and hybrid models, and this technology has given China a head start in the international market.

After years of development, BYD's products cover cars, minicars, buses, trucks, sanitation vehicles, buses, SUVs, MPVS and other low-end, wide range, multi series, including traditional fuel models and new energy models, as well as DM (hybrid) or ev (pure electric) and other types. Up to now, the company has successfully launched Qin, Han, Tang, Song, Yuan, E1/2/3/5; F3 etc.

4.2 Financial analysis

4.2.1 Operation analysis

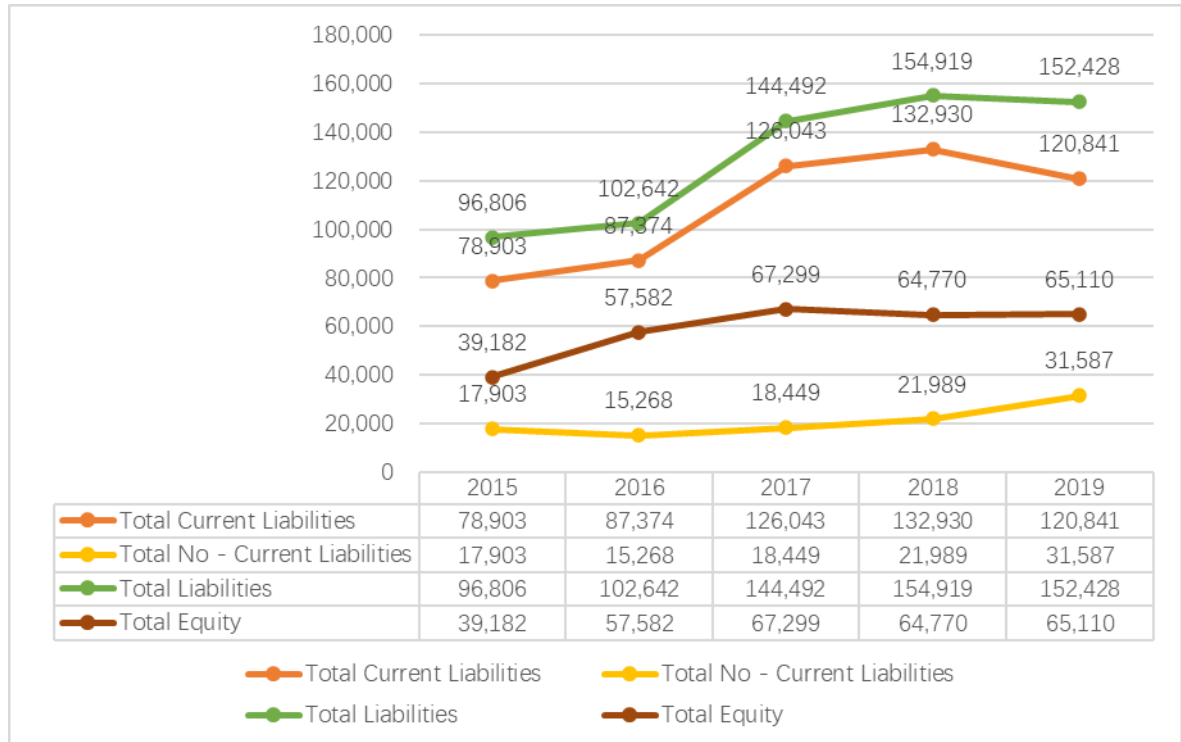
Graph 1: Asset dynamics of BYD Co. Ltd, values HKD Millions (2015-2019)



(Source: BYD annual report 2015-2019, graph created by author)

From Figure 1, we can see that current assets, non-current assets and total assets belong to the stage of continuous rise. The current assets increased by 37.5% from 2015 to 2017, indicating that the enterprise has fast turnover speed and strong liquidity. From 2016 to 2017, the growth of zongzi was greatly improved because the government promulgated the subsidy policy for new energy vehicles and improved the subsidy fund allocation method in order to further promote the healthy development of new energy vehicle industry, continuously improve the industrial technology level and enhance the core competitiveness. The decrease of total assets in 2019 is 8.3% lower than that in 2018 due to the obvious intensification of peer competition. In 2019, more than 130 new energy models will be launched by more than 50 companies in the new energy vehicle industry. Therefore, it brings pressure to BYD's new energy vehicle business, and also causes the decline of total assets.

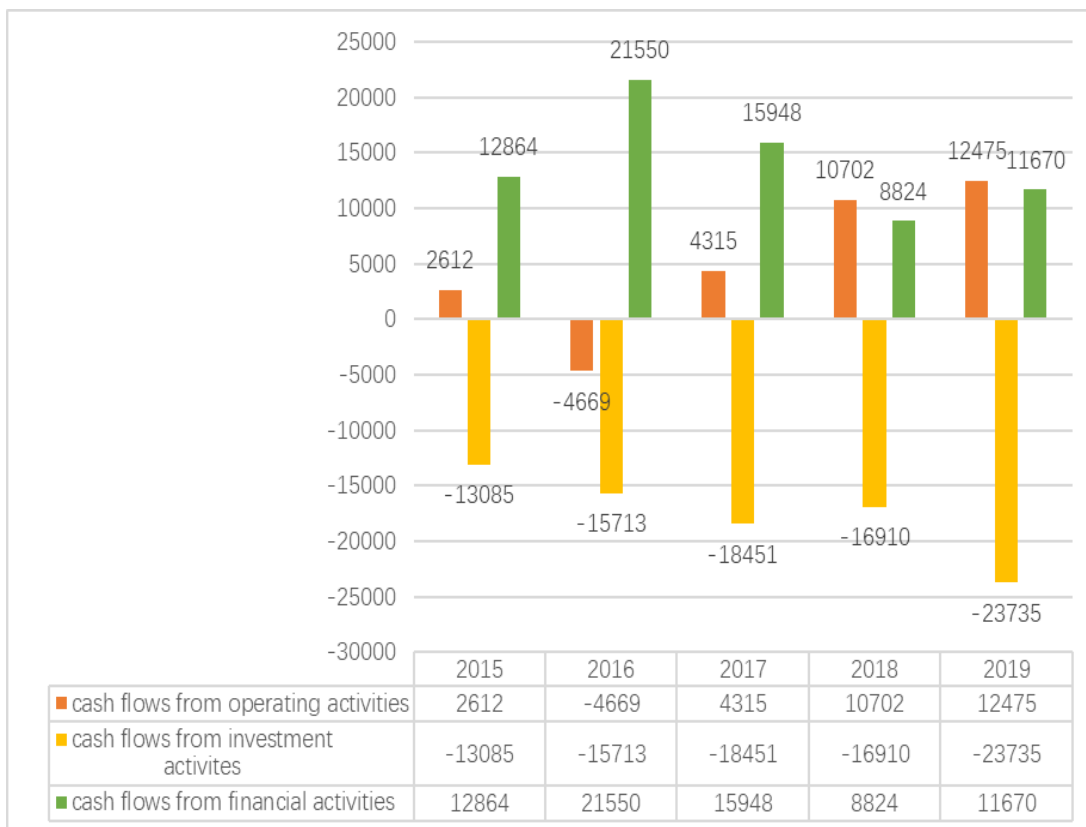
Graph 2: Liabilities dynamics of BYD Co. Ltd, values HKD Millions (2015-2019)



(Source: BYD annual report 2015-2019, graph created by author)

From Figure 2, we can see that current liabilities, non-current liabilities and total liabilities are rising continuously from 2015 to 2018. But it has been a downward trend from 2018 to 2019, with only non-current liabilities rising. The total equity increased from 39,182 HKD million in 2015 to 67,299 HKD million in 2017, and the following 2018 and 2019 were declining trend.

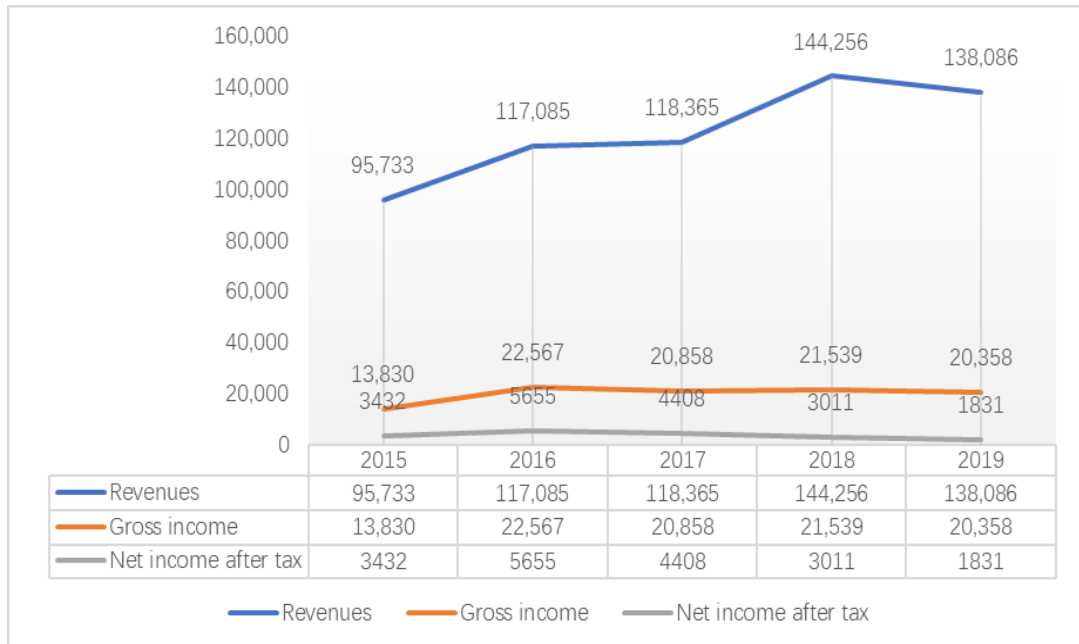
Graph 3: Dynamics of BYD Co. Ltd cash flow in HKD million(2015 – 2019)



(Source: BYD annual report 2015-2019, graph created by author)

From Figure 3, we can see that the dynamic display of cash flow of different activities of the company is separated. Every cash flow has no obvious trend, so in investment activities, it shows negative value most of the time. As for financial activities, we can see that only 2016 is the most special, and their value is negative. This shows that the company's financial activities did not increase but decreased in 2016. In addition, there is no obvious growth from 2018 to 2019, which indicates that due to the rapid development of new energy vehicle industry in 2019, many companies are promoting it, thus causing certain losses to BYD Company. However, the cash flow brought by operating activities has always been positive, so it is of great value. However, in this case, we can see that the main activities of the company are from the operating side.

Graph 4: Dynamics of BYD Co. Ltd profits, in HKD million (2015-2019)

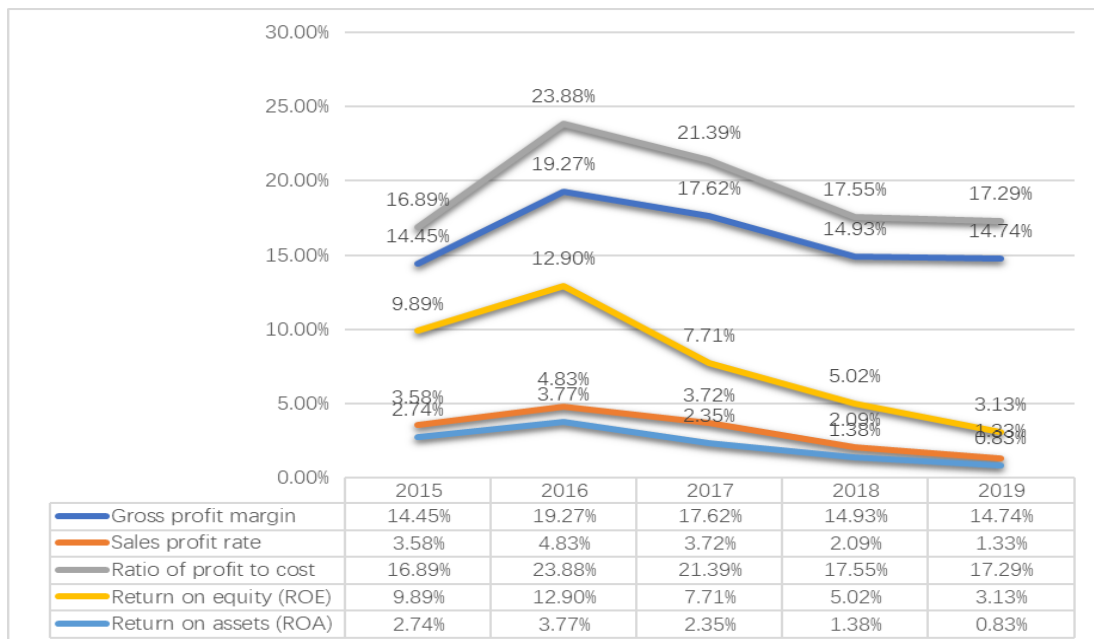


(Source: BYD annual report 2015-2019, graph created by author)

According to the graph 3, during the period of 2015-2019, the company's revenues showed an upward trend, and for gross income only 2015 is low about 13,830 HKD million. From 2016 to 2019, that's an average of 20,000 HKD million in each of those four years. However, net income after tax showed a downward trend from 2017 to 2019.

4.2.2 Profitability analysis

Graph 5: BYD Co. Ltd profitability ratio, in HKD million (2015-2019)



(Source: author's own calculation. Data from BYD annual report 2015-2019)

From 2016 to 2019, operating profit margin, net profit rate on sales, return on equity and return on total assets all declined significantly. By comparing the return on equity of the industry in 2019 of 3.13%, net profit rate on sales of 1.33% and return on total assets of 0.83%, it can be seen that BYD's profitability declined significantly in 2019 and its financial benefit was poor.

In 2019, Tesla sold 366,000 electric cars, with a market share of about 17%, while BYD sold 229,500, with a market share of about 10%. The sales gap between BYD's 2019 sales and second-place BYD has widened to nearly 140,000 units from 18,000 in 2018. As the core field of BYD, the development of new energy vehicles of BYD has been seriously hindered by the expansion of Tesla in 2019.

4.2.3 Leverage analysis

Table 1: BYD Co. Ltd indebtedness ratios from 2015 to 2019 (in HKD Million)

	2015	2016	2017	2018	2019
Debt Ratio	70.23%	63.42%	67.58%	69.82%	69.27%
Long-term debt to assets	12.49%	9.05%	8.29%	9.16%	13.65%
Long-term debt to equity	49.60%	27.67%	28.88%	34.73%	51.29%

(Source: author's own calculation. Data from BYD annual report 2015-2019)

When the debt ratio is more than 50%, liabilities are the main source of assets, and the financial risk is high; when the asset debt ratio is less than 50%, the owner's equity provides resources for assets, and the financial risk is relatively stable. It can be seen from Figure 6 that the debt ratio of BYD Company will remain above 60% from 2015 to 2019. Combined with the above information, the average asset debt ratio of BYD Company is about 50%. It is obvious that the debt ratio of BYD Company is higher than the industry average, which indicates that BYD Company has developed rapidly in recent years, is in the stage of rapid expansion, and has adopted higher financial leverage.

Although BYD is growing, it is also important for both investors and managers to keep moderate debt.

4.2.4 Activity analysis

Table 2. BYD Co. Ltd activity ratios from 2015 to 2019(in HKD Million)

	2015	2016	2017	2018	2019
Inventory turnover	5.32	4.95	4.51	4.56	4.02
Account receivable turnover	2.67	0.53	1.54	1.66	1.59
Account payable turnover	2.42	2.51	2.26	2.48	2.58

(Source: author's own calculation. Data from BYD annual report 2015-2019)

The higher the inventory turnover rate is, the better and the higher the inventory turnover rate is, which indicates that the efficiency of enterprise management is high and the inventory quantity is appropriate. It can be seen from the above table that the inventory turnover rate of enterprises increased steadily in 2017 and 2018, but there was an obvious decline in 2019. Through the previous analysis, we learned that BYD's failure in the field of new energy enterprises and batteries in 2019 led to a decline in sales performance in 2019, slowed down the circulation speed of some inventories, and thus led to a decline in inventory turnover rate.

Accounts receivable fluctuate, we can see that the highest period of accounts receivable is 2015, and then there is a decrease and an increase, but they are not more than 2015. The accounts payable has been relatively stable, with an average of 2.2 in the past five years.

4.2.5 Rivalry

As we all know, the automobile industry has been highly competitive. As a rising star of low-carbon and environmental protection, new energy vehicles appear in the eyes of the public in a new form, which leads to a hot trend. Here are the top 10 new energy vehicle companies by revenue in 2019.

Table 3: the top 10 new energy vehicle companies by revenue in 2019

Rank	Name of company	Nationality	Sales volume (vehicle)
1	Tesla	USA	367,820
2	BYD	China	229,506
3	BAIC	China	160,251
4	SAIC	China	137,666
5	BMW	Germany	128,883
6	Volkswagen	Germany	84,199
7	Nissan	Japan	80,545
8	Geely	China	75,869
9	Hyundai	Korea	72,959
10	Toyota	Japan	55,155

(Source: Insideevs News, table created by author)

From the table 3, in 2019 the 3rd biggest new energy cars company by revenue was BAIC. BAIC's full name is BAIC Motor Co., Ltd. Founded in 1958, it is a Sino foreign joint venture. The following is the key index comparison between BYD Co., Ltd. and BAIC Motor Co., Ltd.

Table 4: Balance sheet comparison of BYD and BAIC in 2019 (in million RMB)

	BYD	BAIC	BYD/BAIC (%)
Cash and Equivalent	11886	49322.499	24%
Accounts Receivable	61057.92	21586.635	283%
Inventories	24027.36	19924.603	121%
Other Current Assets	3535.56	7225.883	49%
Total Current Assets	100507.68	98059.62	102%

Total Non-Current Assets	84321.72	95152.366	89%
Total Assets	184829.4	1932111.986	10%
Accounts Payable	33206.88	44707.45	74%
Other Current Liabilities	17052	59590.372	29%
Total Current Liabilities	101506.44	104297.822	97%
Long-term debt	25237.8	9560.752	264%
Other Non-Current Liabilities	84454.44	6726.212	1256%
Total Non-Current Liabilities	26533.08	16286.964	163%
Total Liabilities	128039.52	120584.786	106%
Total Shareholder's Equity	49205.52	72627.2	68%
Total Liabilities and Shareholder's Equity	184829.4	193211.986	96%

(Source: author's own calculation. Data from BYD/BAIC annual report 2015-2019)

Table 5: Income statement comparison of BYD and BAIC in 2019 (in million RMB)

	BYD	BAIC	BYD/BAIC (%)
Sales	12773852	13714570	93.141%
Gross Profit	231229	3748702.2	6.168%
Operating Profit	236495.4	2168373.6	10.907%
Total profit before tax	243113.1	2131442.6	11.406%
Net profit	211886	1432310.7	14.793%

(Source: author's own calculation. Data from BYD/BAIC annual report 2015-2019)

From the table 5, we can see that in 2019, BYD's total sales are lower than BAIC's.

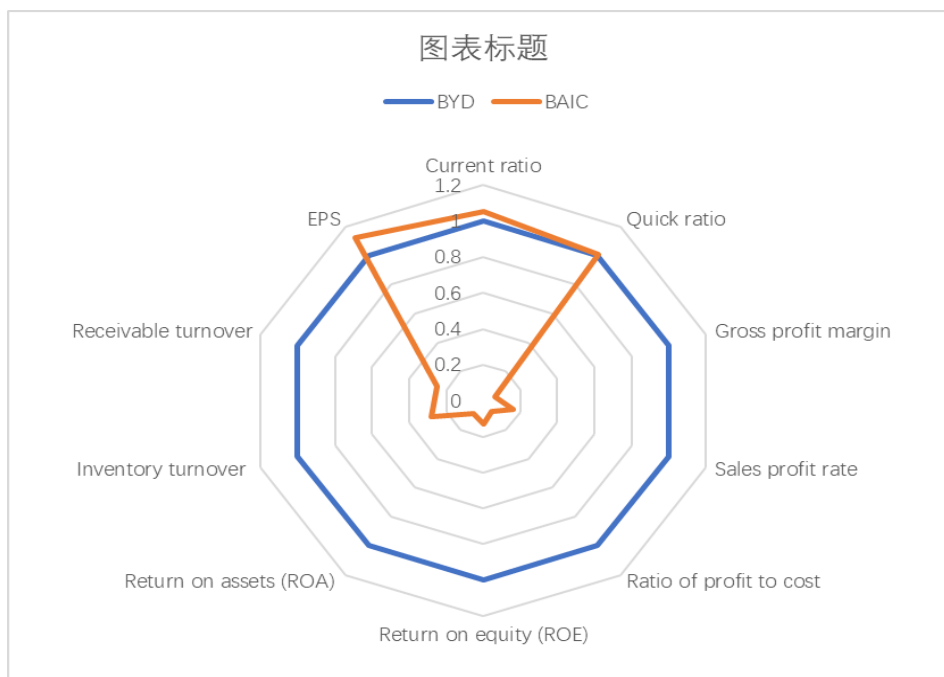
Gross profit is less than 6%, so it can be seen that BYD's sales volume and income in 2019 are not objective.

Table 6: Selected financial ratios of BYD and BAIC in 2019

	BYD	BAIC	BAIC/BYD
Current ratio	0.99	0.94	0.95
Quick ratio	0.75	0.75	0.99
Gross profit margin	1.81%	27.33%	15.10
Sales profit rate	1.66%	10.44%	6.30
Ratio of profit to cost	3.26%	43.14%	13.25
Return on equity (ROE)	2.63%	20.19%	7.69
Return on assets (ROA)	0.70%	7.84%	11.27
Inventory turnover	4.02	14.31	3.56
Receivable turnover	1.59	6.29	3.97
EPS	0.56	0.05	0.09

(Source: author's own calculation, data from BYD's and BAIC's annual reports 2019)

Graph 6. Benchmarking analysis results (with BAIC)



(Source: author's own calculation, data from BYD's and BAIC's annual reports 2019)

From this figure, we can see that the current ratio of BYD is lower than that of BAIC. The smaller the ratio is, the weaker the short-term solvency of the enterprise is, and the enterprise does not have sufficient working capital. At the same time, we can see that the EPS of BAIC is much higher than that of BYD. EPS is the final result of the company's profitability, so we know that the final company's profitability of BAIC is higher than that of BYD, which means that the total profit of BAIC is higher than that of BYD.

4.3 PEST

4.3.1 Political factors

PEST analysis method is an effective tool to analyze the macro environment of enterprises based on politics, economy, society and technology. The four factors play an important role in guiding the strategy formulation and adjustment of BYD's new energy business.

At present, China has reached an unprecedented level in supporting the development of new energy vehicles. The research and development and implementation of new energy vehicles not only solves the demand for gasoline, but also contributes to environmental protection; For this industry, the government strongly supports and promotes the development of BYD Company. Therefore, in a long period of time, the development potential of BYD Company is huge, and the development speed will be accelerated. In addition, the government's policy subsidies to a certain extent will also have a positive impact on the further development of BYD company.

At the same time, relevant laws and regulations formulated by the government will indirectly promote the development of BYD. For example, the economic contract law, the enterprise bankruptcy law, the trademark law, the quality law, the patent law and the Sino-foreign joint venture law promulgated by the state.

To a certain extent, these laws protect the patent and technology of new energy vehicles of BYD Company, at the same time, they require BYD Company to guarantee the quality of cars and guarantee the export of BYD cars. In addition, the relevant regulations on the degree of industrial pollution, requirements on production safety and the protection of employees' rights have certain restrictive effects on the development of BYD Company.

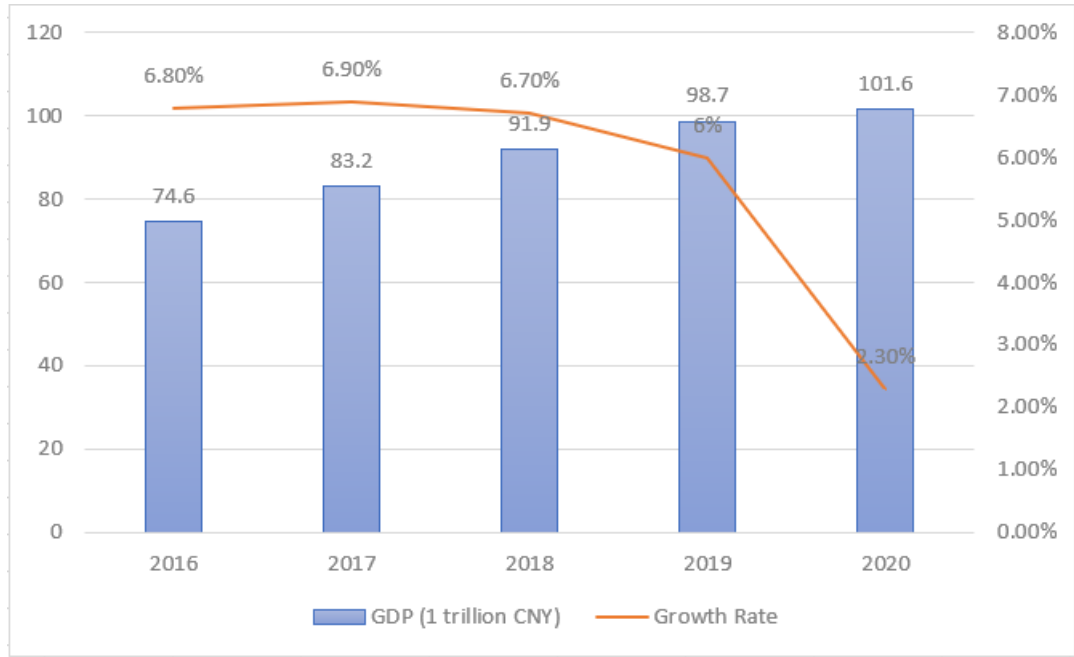
4.3.2 Economic factors

In the current China's overall economic development trend is positive, through China's annual GDP development value, we can see that China's economic operation is good. In addition, as the largest developing country, the economy of China and all regions is developing rapidly. Coupled with the improvement of people's living standards and the continuous increase of economic income, disposable income has increased significantly. As a result, more and more people begin to seek higher economic consumption, and

automobile consumption is one of them. Therefore, the continuous expansion of automobile market is conducive to the development of BYD Company.

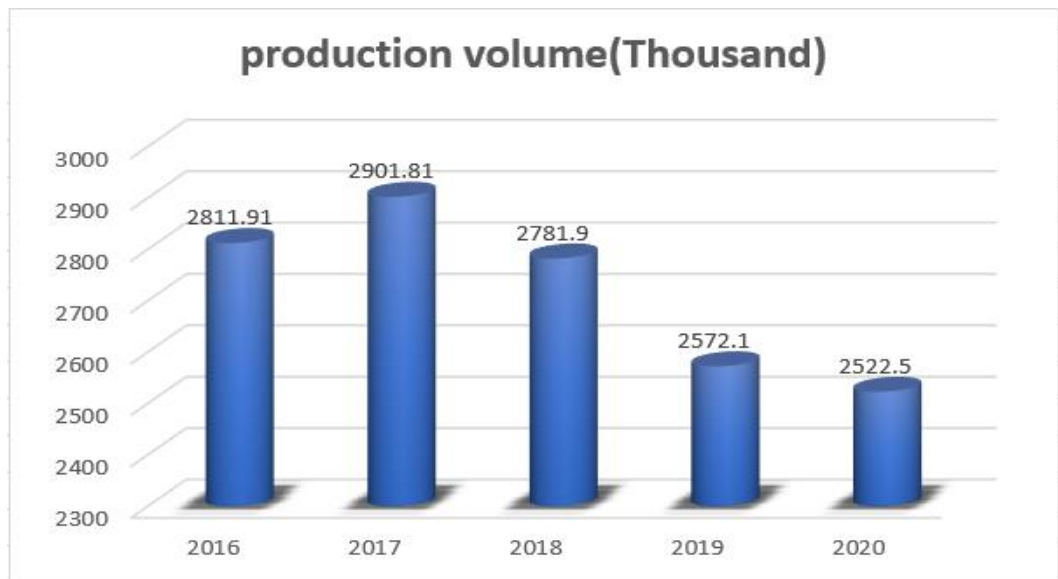
According to the graph 5 and graph 6, while China's GDP is growing, the growth rate is declining. China's automobile production and GDP show the same trend.

Graph 7 GDP and its growth rate of China (2016-2020)



(Source: National Bureau of Statistics of China, 2021)

Graph 8 Automobile production of China (2016-2020)



(Source: National Bureau of Statistics of China, 2021)

According to the data, the per capita disposable income of China has grown steadily. In 2019, the per capita disposable income of the national population was 30,732 CNY, a nominal increase of 8.87% over the previous year. Among them, the per capita disposable income of urban residents was 42,358 CNY, an increase of 7.92%; the per capita disposable income of rural residents was 16,021 CNY, with an increase of 9.6%. The median per capita disposable income of the national residents was 21,558 CNY, an increase of 8.59%. The median per capita disposable income of rural residents was 13,327 CNY, which was 9.93% of the average.

China's current economic development is a healthy development model. In the context of the global economic crisis, China is the only country that can reduce the damage caused by the crisis and continue to promote economic development. The overall unemployment rate in China is low, and the government has introduced relevant policies to ensure the employment of workers, so the overall income level of residents is rising.

September 27, 2008 Warren E. Buffett, the famous American investor's investment flagship Berkshire Hathaway Energy Holdings, a subsidiary of Hathaway Inc., announced that it will subscribe 225 million shares of BYD at the price of 8 Hong Kong dollars per share, accounting for about 10% of the shares after the placement. The total amount of the transaction is about 1.8 billion Hong Kong dollars. Buffett's investment represents a recognition of BYD's prospects and brand value.

4.3.3 Social factors

While making every effort to build an internationally competitive enterprise, BYD regards caring about social construction and actively participating in public welfare undertakings as an important content and concrete embodiment of fulfilling its social responsibilities. It always pays attention to and supports social public welfare undertakings, actively participates in disaster relief and rescue, donates educational resources, social stability, supports cultural and sports public welfare undertakings, etc.

Special support the local education development, outbreak, southeast Asian tsunami donations, flood relief and southern sichuan wenchuan earthquake relief in the process of performance, fully embodies the BYD thick love and social responsibility, with their own practical action illustrates the company to fulfill their social responsibility, widely recognized by society.

This is a good publicity of credibility for BYD, which is conducive to the sustainable and benign operation of the company.

4.4 SWOT

4.4.1 Strengths

1) Technical advantages of independent research and development. This strategy has been implemented since BYD was founded. When BYD entered the battery industry, it decided to start from the technical core and determine its own core competitiveness cost. Following a core competitiveness, BYD Company designed its own production line, replacing machinery with manual, which reduced the cost in essence and made the production line more flexible. BYD has made some achievements in the battery and IT industries, and used its own advantages to cultivate another industry automobile manufacturing industry. At the same time in the process of research and development, applied for more than 1000 national patents, so as to ensure their own technical autonomy.

2) Independent brand strategic advantage. Different from other automobile companies, BYD has broken through the limitations of traditional gasoline vehicles, focused on the development form of domestic vehicles, and vigorously developed electric vehicles by taking advantage of its own advantages in the battery industry. If the battery has enough power savings, short charging time, low manufacturing cost and safe and stable performance, then the electric vehicle industry will enter a period of rapid growth. The iron battery independently developed by BYD has obvious advantages over the battery developed by Toyota and General Motors, thus creating a new milestone for its development.

3) Focus on resource advantages. BYD Company makes full use of internal it, battery and other high-quality resources to breed one new business after another, and constantly integrates and develops in technology, so as to open up a new business of electric vehicles and make it have unique technical advantages in the automotive field.

4.4.2 Weaknesses

1) Technical disadvantage. There are some defects in automotive batteries, such as patent hidden trouble, low conductivity, low capacitance, poor low temperature performance and low yield, which are the main problems of LiFePO₄ battery technology.

In the field of electric vehicle structure and safety, BYD automobile company is at a disadvantage. In the field of electric vehicle structure and safety, there is a gap between BYD automobile company and international advanced level, which is inferior to Daimler and other foreign companies. BYD is at a disadvantage in the design of car models. Many models are accused of imitating other models without their own characteristics. There is no brand advantage in sports car, automobile technology starts late, accumulates less, imitates more, and has less innovation advantage. There is a gap between its cost control and Japanese and Korean automobile brands. Except for the automobile, other businesses were greatly affected by the economic crisis, the decline in performance was serious, affecting the new car research and development expenses.

2) Weakness in marketing channels. The distribution channels of BYD mainly exist in the form of network distribution, supplemented by other multi-minute distribution channels. Due to the fact that all the middlemen directly pick up the goods from the manufacturers, many middlemen are restricted by the manufacturers, which leads to the fact that the manufacturers dominate the task volume of the dealers to pick up the cars, and the dealers have greater risks. The network channel mode of BYD Company is facing a shake. The root of the shake is that the BYD manufacturer has given too much pressure to the dealers in its long-term business policy towards the dealers. For the automobile industry, the continuous expansion of manufacturers' sales network has resulted in the phenomenon of more manufacturers and less customers, the profit resources become thinner and thinner, and the white-hot competition among dealers continues to expand. At present, the optimization of business resources greatly depends on the product structure of manufacturing enterprises. The product right is in the hands of automobile manufacturing enterprises, which makes automobile dealers in the shadow of enterprises. The lack of product right is also the deep reason for the collective weakness of Chinese automobile dealers.

With the expansion of the financial crisis, production cost has become the most important factor in BYD's internal environment. Cost control ability has become the key to success, and the key to cost control ability is independent research and development ability. Cost control ability becomes the key to success, and the key of cost control ability is independent research and development ability. BYD's cost control ability is the best in China's independent brand enterprises, and also in a leading position in the world. Compared with foreign competitors, BYD has made great progress in scale expansion,

product development, technological innovation and brand influence in recent years, but there is still a gap in scale economy, market share and ownership.

4.4.3 Opportunities

1) Opportunities brought by legal support. The strength of China's government executive agencies is growing. Since the establishment of the socialist market economic system, in order to ensure the effective operation of the open market economy, the Chinese government has established and sorted out relevant laws and regulations, and constantly improved them. At the same time, the reform of government institutions is also in progress. As a result, the law enforcement agencies will be more and more perfect, and the law enforcement will be more and more strict. These are the important political and legal environment trends that the enterprises marketing in China must pay attention to.

2) Opportunities presented by national planning. With China's efforts to save energy and reduce emissions, the auto industry, which is a big oil user, will be increasingly affected. National guide and encourage the development of energy-saving environmental protection small cars, automobile industry should combine national energy restructuring strategy and emissions requirements, actively develop electric vehicles, automotive power trains and other new dynamics research and industrialization, the development of hybrid technology and car diesel engine technology, the development of the electric car industry has a growing market. (China's automobile industry development policy, 2004)

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4) Opportunities brought by social consumption environment. First, the per capita GDP of China has increased, and some residents already have the ability to consume automobiles; second, in order to expand domestic demand, the government has adjusted the consumption policy, and the depressed automobile consumption potential has gradually turned into the real purchasing power; Third, after China's accession to the WTO, people's expectations have changed, and the consumption power of cars holding money for

purchase has been gradually released. The impact of automobile on Chinese society is further increasing, involving the growth of industry, transportation and living speed.

The impact of Volkswagen consumption on society is far more than the automobile industry itself. Automobile is not only the propeller of economic growth, but also will change people's concept of distance and time after cars enter the family on a large scale. In this process, people's production and travel mode, living choice, urban and rural structure, social relations, communication mode, consumption structure and business mode will also change, which will affect the employment structure, social relations, communication mode, activity rhythm, knowledge structure and cultural customs, and gradually form China's "automobile culture".

4.4.4 Threats

1) Threats from competitors. In the process of development, BYD Co., Ltd. has both development opportunities and potential threats in the external environment. The first is the threat from competitors' technology. The secondary charging tram, mobile phone parts, mobile phone assembly and automobile industry of BYD Co., Ltd. are fully competitive industries. The main business of BYD Co., Ltd. is facing fierce market competition at home and abroad. There is also the threat from the price of competitors. On the one hand, the scale advantage of competitors can reduce the unit product cost. As a result, competitors can get more profits even though they sell their products at the same price. On the other hand, as domestic and foreign competitors expand their business scale and market share by means of continuous industry integration in recent years, the market position of BYD Company Limited may be challenged to some extent, which may have a certain impact on the future income and profitability of BYD Company Limited.

2) The impact of macroeconomic environment. The impact of external macroeconomic environment on BYD Co., Ltd. is another threat that cannot be ignored. European sovereign debt has been deteriorating, and the aftermath of the financial crisis has not been exhausted. At the same time, China's overall inflation level is at a high level. In order to control the inflation pressure, the tight monetary policy will continue in the short term, and the financial capital of enterprises will face certain difficulties.

The changes of interest rate and exchange rate sometimes have a negative impact on the development of small and medium-sized technology-based enterprises. As a result of

the adjustment of national macroeconomic policies, purchase tax preferences and other related to promote the exit of the policy and their own need to adjust the impact.

3) Risk of intellectual property. BYD Company is a high-tech enterprise with independent innovation. Intellectual property rights such as trademark, patent and proprietary technology play an important role in the development of various businesses of the company. Although legal and effective measures have been taken to protect all kinds of intellectual property rights, the legal department has specially established intellectual property rights and intellectual property related affairs such as liability patents and trademarks.

4) Since the outbreak of COVID-19, BYD Automobile, as the leading enterprise of new energy vehicles in China, has been greatly impacted. In addition, the upstream supply chain system has not been restored and downstream consumers' willingness is not strong, which leads to certain operational risks. According to statistics, the sales volume of BYD car in 2020 Q1 decreased by 34.51% compared with last year, and the total number of vehicles in 2020 was 426,972, down by 7.46% compared with last year. Sales of new energy vehicles reached 189,689 units, down 17.35 percent year on year.

Table 7. SWOT analysis

Strengths	Weaknesses
1. Advanced equipment and technology 2. Extensive scope of business 3. Intangible assets such as brand and patent competitiveness 4. Good form of financing 5. Stable ability of cost control 6. Strong human resources and adequate financial resources. 8. China has high safety standards for new energy vehicles	1. There is a gap in scale with the world's manufacturing enterprises 2. Poor positioning ability of uncertain factors 3. The marketing network is incomplete 4. Incomplete production process 5. The instability of the enterprise itself

Opportunity	Threats
<ol style="list-style-type: none"> 1. Emission standards in the international market continue to increase 2. Government policy support 3. Legal support and Strong demand at home and abroad 5. Energy and ecological environment constraints on the development of domestic and foreign automobile industry 6. Opportunities brought by social consumption environment 	<ol style="list-style-type: none"> 1. The management system of the automobile consumption market needs to be improved 3. Constrained by consumption conditions and environment 4. Fierce market competition at home and abroad 5. Industry sales are depressed due to COVID-19.

Source: Own analysis

5 Conclusion

Through the analysis, we have realized the comprehensive analysis of BYD Company's financial situation, and with the help of different analysis methods and analysis models, we have carried out the financial analysis and Evaluation Research on BYD Company, so as to draw relevant conclusions:

1) The solvency is weak and the financial risk is high. Specifically, there are more current liabilities, lower current ratio and cash ratio, higher asset liability ratio and higher financial risk. The consequence of this is the direct expansion of interest expense, and then the obvious burden of financial expense.

2) Operating capacity is not strong, asset management efficiency is low. The main performance is that there is a big gap between the turnover rate of receivables and the industry average, and the index has been in a downward trend in the past five years, and the inventory turnover rate has a downward trend. From this we can see that the overall level of business ability has declined.

3) The low turnover rate of accounts receivable will affect the liquidity of enterprises, and may also lead to the need for additional financing. The profitability is fair and there is a trend of acceleration. BYD's profitability has been performing well in recent years. Due to the increase of sales volume and operating revenue, the company's profitability is relatively good.

4) The growth ability cannot be underestimated, and the development prospect is broad. As a leading enterprise in the industry, BYD Company still has great advantages in technology, operation and management. With the strategic shift of the company, that is, it can take new energy vehicles, power batteries and related new energy derivatives as the research and development focus and the market investment focus. In addition, new energy products have become the general trend of the market. It can be predicted that the sales volume of new energy vehicles will grow rapidly. Sex, after all, lasts.

5) Face COVID - 19 outbreak, sales of new energy vehicles faced sharp landslide, byd adjust their production plan, on the one hand, byd announced on February 8, began to aid production masks, guarantee the employment of on-the-job worker already so, at the same time in the production of high quality N95 masks to support the front line, the public is at a relatively low profit to ensure the orderly operation of the factory; On the other hand, in

the production of new energy vehicles, BYD announced the establishment of Weaver Company to increase the research and development of core components and improve their innovation ability.

6 Discussion

According to the above analysis and research conclusions, combined with the financial strategy analysis of BYD Company, I think that in order to improve the current situation, we need to:

1. Strengthen the prevention of debt repayment risk. Debt repayment risk is one of the important risks faced by the company, because the enterprise needs development and financing, and financing needs relatively high cost. According to the company's relatively low current ratio and relatively high asset liability ratio, as the leader of new energy vehicle industry, it is necessary to establish and improve the financial risk control system.

2. According to the financial analysis, we can see that the accounts receivable rate and inventory turnover rate of the enterprise are relatively low, and the capital asset management level needs to be improved. As BYD is the leader in the new energy vehicle industry, the revenue growth in recent years is relatively large, and the engineering quantity of the enterprise will also increase greatly. Therefore, it is necessary to formulate scientific and reasonable accounts receivable management and inventory management system.

3. BYD Company can strengthen the adjustment of business structure and vigorously promote the new energy business strategy. In recent years, due to global warming, a variety of ecological damage, people's attention on traditional fuel vehicles has also decreased. BYD's traditional fuel vehicles are not competitive in the global market. Therefore, it is necessary to reduce some models with poor profitability and lack of competitiveness, and focus on superior resources to develop new energy vehicles. According to pest and SWOT analysis, for the market, BYD's new energy vehicles have great advantages, and the core of future development should be new energy vehicle business. At the same time, it can combine the automotive business with the battery business to play its synergy.

4. We should prevent the trap of cheating and mending, make rational use of national policies, improve legal awareness, enhance our own R & D, production and sales capabilities, and improve product quality. As the new energy technology and market are not perfect, the state gives certain subsidies to promote the development of the industry and help the industry tide over the difficulties.

5. Due to the high development of the Internet, BYD Company can choose some partners. On the one hand, it can increase the popularity of the Internet, increase the number of customers, and realize the establishment of brand and the spread of word-of-mouth, so as to achieve a win-win situation; on the other hand, Internet companies have leading technologies in the field of intelligence, so it has a great role in promoting the interconnection, network sharing and other new business models, which helps to speed up the intelligent progress of the company's new energy vehicles Process, operation and maintenance upgrade.

6. Deepen cooperation with suppliers to improve product performance. Under the epidemic situation, the importance of suppliers is self-evident. For BYD, although it has a certain self-sufficiency rate, the epidemic situation highlights the importance of cooperation. The company can establish strategic alliances with suppliers and form a benefit sharing mechanism. For customers with long-term partnership, BYD should be timely collection and to speed up the supplier of the receivable, and under the outbreak, the number of wins enterprise co., LTD., BYD can be Shared with the supplier to establish financial center, according to the demand for raw materials and other parts procurement, reduce the backlog of inventory, strive to achieve zero inventory management, reduce their inventory costs.

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8 Appendix

Balance Sheet of BYD (in HKD Million)

(Assets)	2019	2018	2017	2016	2015
Cash & Short Term Investments	14,150	14,884	11,888	8,583	7,873
Cash Only	13,059	14,884	11,888	8,307	7,552
Total Accounts Receivable	72,688	75,832	72,359	54,327	34,459
Accounts Receivables, Net	60,550	57,634	63,956	51,022	31,841
Accounts Receivables, Gross	62,299	58,886	64,549	51,586	32,421
Other Receivables	12,138	18,197	8,404	3,306	2,618
Accounts Receivable Turnover	1.9	1.9	1.64	2.16	2.78
Inventories	28,604	30,026	23,856	19,388	18,798
Other Current Assets	4,209	10,809	15,328	5,116	3,939
Total Current Assets	119,652	131,551	123,431	87,415	65,069
Net Property, Plant & Equipment	69,954	61,258	61,466	52,007	50,274
Property, Plant & Equipment - Gross	114,951	99,936	95,379	78,056	74,320
Total Investments and Advances	6,853	6,107	8,784	6,103	5,920
Other Long-Term Investments	2,311	2,046	5,104	3,598	3,666
Long-Term Note Receivable	1,387	2,434	1,260	283	79
Intangible Assets	13,371	11,789	9,944	7,614	8,556
Net Goodwill	74	75	79	74	79
Net Other Intangibles	13,297	11,714	9,865	7,541	8,477
Other Assets	5,932	7,159	7,016	6,810	6,646
Total Assets	220,035	221,881	213,799	161,847	137,833
Asset Turnover	0.62	-	-	-	-

Balance Sheet of BYD (in HKD Million)

(Liabilities & Shareholders' Equity)	2019	2018	2017	2016	2015
Short Term Debt	54,393	52,782	48,343	31,245	27,376
Accounts Payable	39,532	51,570	47,450	38,672	36,588
Income Tax Payable	290	260	394	729	345
Other Current Liabilities	20,300	23,206	23,400	11,237	10,446
Accrued Payroll	4,231	4,397	3,817	3,323	2,528
Total Current Liabilities	120,841	132,930	126,043	87,374	78,903
Current Ratio	0.99	0.99	0.98	1	0.82
Quick Ratio	0.75	0.76	0.79	0.78	0.59
Cash Ratio	0.12	0.11	0.09	0.1	0.1
Long-Term Debt	30,045	20,321	17,716	14,653	17,222
Other Liabilities	236	1,591	0	1	3
Total Liabilities	152,428	154,919	144,492	102,642	96,806
Non-Equity Reserves	2,497	2,192	2,008	1,623	1,845
Common Equity (Total)	58,578	58,503	61,353	52,948	34,724
Total Shareholders' Equity	58,578	58,503	61,353	52,948	34,724
Total Equity	65,110	64,770	67,299	57,582	39,182
Liabilities & Shareholders' Equity	220,035	221,881	213,799	161,847	137,833

Income Statement of BYD (in HKD Million)

	2019	2018	2017	2016	2015
Sales/Revenue	138086	144256	118365	117085	95733
Cost of Goods Sold (COGS) incl. D&A	117729	122717	97507	94517	81903
Depreciation & Amortization Expense	11155	10994	8029	8082	6554
Depreciation	9656	9020	6641	6203	5533
Gross Income	20358	21539	20858	22567	13830
Other Operating Expense	0	147	268	378	208
EBIT	3833	5022	7162	9295	4411
Non Operating Income/Expense	2933	4949	2311	1167	2501
Non-Operating Interest Income	401	222	110	178	66
Interest Expense	3954	4123	2701	2103	1871
Pretax Income	3236	5461	6740	8375	4981
Income Tax	354	982	811	1272	810
Consolidated Net Income	2403	3930	5388	6155	3821
Minority Interest Expense	572	919	981	500	388
Net Income	1831	3011	4408	5655	3432
EPS (Basic)	0.67	1.1	1.62	2.19	1.39
Basic Shares Outstanding	2728	2728	2728	2581	2476
EPS (Diluted)	0.67	1.1	1.62	2.19	1.39
Diluted Shares Outstanding	2728	2728	2728	2581	2476
EBITDA	14988	16016	15191	17377	10965
EBIT	3833	5022	7162	9295	4411

Cash Flow (HKD Million)					
	2015	2016	2017	2018	2019
cash flows from operating activities	2612	-4669	4315	10702	12475
cash flows from investment activities	-13085	-15713	-18451	-16910	-23735
cash flows from financial activities	12864	21550	15948	8824	11670
Net cash flow	471	2624	1819	1282	2043