

# Analysis of Company B based on Harvard Analysis Framework

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**Abstract.** With the national policy advocating green travel and people's awareness of environmental protection, new energy vehicles are more and more popular, the new energy vehicle industry is developing rapidly. Based on the Harvard analysis framework, combined with B enterprise strategy, understanding the real social environment of enterprises, Harvard analysis framework includes strategic analysis, accounting analysis, financial analysis, prospect analysis. By understanding the changes in the environment, internal and external advantages and disadvantages of the enterprise, analyze the status, resources and strategic capabilities of the enterprise to provide and formulate strategic plans for the enterprise, analyze the key accounting policies and accounting estimates of the enterprise according to the accounting statements, and analyze the solvency of the enterprise through vertical analysis, horizontal analysis and ratio analysis, Assess profitability, operational ability and growth capabilities, analyze the current strategy implementation through financial and non-financial indicators, as well as forecast development prospects and development trends. B company in the new energy vehicle industry far ahead, representative, is conducive to the application of Harvard analysis framework in the new energy vehicle industry. There are four chapters in this paper. The first chapter introduces the background of this paper and the significance of the research. The second chapter describes the relevant research of The Harvard Analysis Framework, including the proposal of the Harvard Analysis Framework and the necessity of applying it to corporate financial analysis, introduces the concept of PEST strategic analysis method and SWOT analysis method, and the third chapter is the focus of this paper, interpreting the B company strategy from multiple angles. Describe the company profile, evaluate the business situation and forecast the trend through the financial vertical analysis, carry out strategic analysis of Company B from politics, economy, society and technology based on PEST, and sWOT analysis of Company B based on porter five force models. The fourth chapter summarizes the full text, puts forward some suggestions on the problems of B company and predicts the development prospects. As a new industry, the new energy vehicle industry is highly competitive, in order to occupy more market share and increase competitive advantage, B company needs to continue to develop and improve. On the one hand, we should strengthen financial management, adjust the structure of assets and liabilities, form the scale of production, minimize costs, make B company create more profits and develop leading business; This paper uses the Harvard analysis framework to conduct a comprehensive analysis of B company, and at the same time to other enterprises in the new energy industry to play a role in reference.

**Keywords:** Harvard Analytics Framework; Strategic Analysis; Financial Analysis.

## 1. Introduction

### 1.1 Research Background

The development of China's new energy automobile industry has gone through five stages of development. At the beginning of the 21st century in the embryonic stage, the research project of new energy vehicles was included in the national "15th" period "863" major scientific and technological issues, the research and development of new energy vehicles began to receive the attention of the government. Since January 1, 2006, the People's Republic of China has implemented the Renewable Energy Law of the People's Republic of China, and the new energy vehicle industry has received high attention, and the State has made the development and utilization of renewable energy a priority area for energy development and promoted the establishment and development of the renewable energy market. 2008 is China's "New Energy Vehicle First Year", new energy vehicles into the stage of mass production. New energy vehicles in 2014 are in a high-speed growth stage. [1]At the same time, with the strengthening of people's awareness of

environmental protection and resource constraints, more and more citizens choose "low-carbon life", the use of new energy quickly into our lives. China's new energy vehicles are in the rapid development stage, a large number of automotive enterprises into the development and production of new energy vehicles, China is now the world's largest producer of new energy vehicles, the total amount of the global new energy vehicles accounted for more than 50%.

The development of the new energy vehicle industry is influenced by political, economic and other factors, and with the strong support of government policy and the rapid development of economy, enterprises in the new energy vehicle industry will face more and more complex and changing environment, in order to cope with the changing market and gain competitive advantage, enterprises need to adjust their enterprise strategy in a timely manner, carry out financial analysis, Market analysis. Most new energy enterprises obtain financial information through traditional financial analysis, but traditional financial analysis does not take strategy into account and can not meet the requirements of modern enterprises. The Harvard Analytics Framework combines corporate strategy and financial analysis to provide a more comprehensive assessment of the company's financial position from a strategic, accounting, financial, and outlook perspective. This paper provides advice and forecast prospects for B company and other new energy vehicle enterprises by comparing the financial data of B company 2014-2018 and using the literature review method, PEST, SWOT analysis model and Porter five-force model.

## **1.2 Research Implications**

### **1.2.1 Theoretical Implications**

Most new energy vehicle enterprises adopt traditional financial analysis, because of the complexity of social and market environment, the traditional financial analysis has limitations, can not meet the requirements of modern new energy vehicle enterprises. The analysis of the financial situation of enterprises should stand at the strategic height, the Harvard analysis framework optimizes the traditional financial analysis, combines the enterprise strategy, accounting, financial data, provides the company with a feasible development strategy and financial plan, and enriches the application of the Harvard analysis framework in this strategic emerging industry in the new energy vehicle industry.

### **1.2.2 Practical Implications**

This paper selects the well-known automobile enterprises in China as the research object, analyzes the advantages, potential threats and development status through the Harvard analysis framework, which is not only conducive to the expansion of B company's popularity, competitiveness, but also improve the efficiency of experience management and the utilization of financial information, and put forward practical suggestions for the development of B company.

## **2. Literature Review**

### **2.1 Research on the Harvard Framework**

#### **2.1.1 The Proposed Harvard Analysis Framework**

In order to combine corporate strategy and understand the real social environment in which the enterprise is located, three Harvard scholars put forward a framework of Harvard's analysis, including strategic analysis, accounting analysis, financial analysis, and prospect analysis. [2] Strategic analysis includes organizational diagnostics and environmental analysis. Strategic analysis first analyzes the status, resources and strategic capabilities of enterprises by understanding the changes in the environment in which the enterprise is located, the advantages and disadvantages of internal and external, and the strategic plan for the enterprise. Accounting analysis is mainly based on accounting statements, the enterprise's key accounting policies, accounting estimates analysis. Understand the financial position and operating performance of the enterprise through qualitative analysis, quantitative analysis, static analysis, dynamic analysis, etc. Financial analysis is based on accounting and statements, through vertical analysis, horizontal analysis, ratio analysis of the

enterprise's solvency, profitability, operational ability and growth capacity to assess. Stakeholders can evaluate the status quo of enterprises and forecast enterprises through financial analysis. The prospect analysis is the analysis of the current strategy implementation status through financial and non-financial indicators, as well as the forecast of development prospects and development trends. Today's Harvard Analytics Framework is used in a wide range of applications, such as the Grei Electronics Financial Statement Analysis within the Harvard Analytics Framework and poly Real Estate Financial Analysis within the Harvard Analytics Framework. They are interconnected and mutually reinforcing, providing an analytical basis for sustainable development of enterprises. The relationship is as shown by Fig.1:

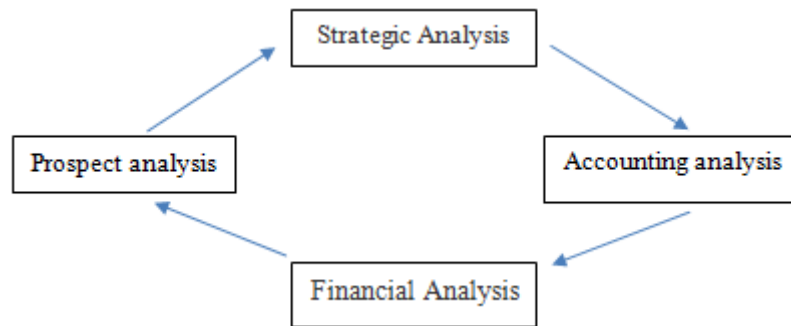


Fig.1 Content diagram of Harvard analytical framework

### 2.1.2 The Necessity of the Harvard Analysis Framework Applied to Corporate Financial Analysis

The traditional financial analysis is applicable to smaller enterprises with a single business, but many large-scale enterprises with wide scope of business are still limited to the traditional financial analysis, the conclusions of traditional financial analysis often depend on the simple financial indicators of the financial statements, because the consideration of the strategic approach of enterprises, It is difficult to obtain accurate financial analysis results. The limitations of traditional financial analysis are mainly reflected in:

(1) The financial indicators themselves are not accurate

Traditional financial analysis emphasizes objective financial indicators, and financial indicators rely on the financial data of the statement, so whether the financial data is comprehensive and accurate, whether the content is updated in a timely manner will affect the financial analysis results. China's listed companies to disclose the annual report time is generally from January 1 to April 30, however, the quality of information disclosure is difficult to ensure, in recent years, listed companies inthe disclosure of inaccurate cases. The main reason is the lack of effective legal restraint mechanism for information disclosure subject, and the lack of effective information disclosure implementation mechanism. For example, in 2019, the Shenzhen Securities Regulatory Bureau issued a warning letter on the inaccurate disclosure of HMJT information of a listed company, one is that the company did not disclose the important progress information of the Equity Transfer Agreement in a timely manner, and the other is that the relevant information of the inquiry letter seeking is inaccurate. The financial data is used to analyze the enterprise's inaccurate, and the analysis results are not in line with the actual financial position and profitability of the enterprise. [3]

(2) Non-financial indicators ignored

With the rapid economic growth, China's industrial structure is constantly adjusted and upgraded, and with the support of the government and the introduction of policies, new industries are receiving more and more attention. The analysis of enterprises in emerging industries needs to be combined with non-financial indicators, while most enterprises often only analyze the impact of financial factors on the financial situation of enterprises, ignore the impact of intangible value on the development of enterprises, ignore the overall environment and development strategy of enterprises. The value influencing factors of emerging industrial enterprises are not only the financial data involved in the traditional financial analysis, but also the non-financial index which

has a greater impact on the industrial value, which is wide-ranging and influential, and often includes technological innovation ability, opportunity value, employee ability and so on. The Harvard analytical framework has comprehensiveness, makes up for the shortcomings of the traditional financial analysis method, based on strategic analysis, and then carry out accounting, finance, prospect analysis, Harvard analysis framework combined with the advantages and disadvantages inside and outside the enterprise, market environment, the analysis and evaluation of the current situation of enterprises has a very important significance.

## 2.2 PEST Strategic Analysis Method

PEST analysis includes political, economic, social, and technical. [4] P refers to Politics, the change of political system and the formulation of laws and regulations and regulations that restrict the operation of enterprises have an impact on the organization's business strategy, and the enterprise must make timely adjustments. These related policies and laws can affect the way industries operate and profit. E refers to Economic, the national economic environment, including economic structure, economic development level and economic trends and other impact on the formulation of corporate strategy, enterprises in a complex and changing social environment, by the country's macro-environment and economic globalization, so enterprises in the formulation of strategy, financial analysis need to consider the domestic and foreign economic environment. S refers to Society, the social environment, natural environment of enterprises, the economic status quo, strategy formulation, development prospects also have a great impact. Social environment includes residents' income, household consumption level, population quantity and mobility. The natural environment is the climate, ecology, resource conditions and so on in the areas involved in enterprises. Enterprises need to adapt to local conditions, according to specific social and natural environment to formulate development strategies. T refers to Technology, and technology factors include new technologies, new inventions, new energy innovations and applications. Technological changes are often supported by the government, changing the industrial structure, people's way of life, enterprise strategy is often no longer applicable, need to be updated and adjusted.

Through the overall analysis of four aspects of the macro-environment of enterprises, analysis of potential factors, for enterprises to formulate strategic objectives. Relationship sit as Fig.2

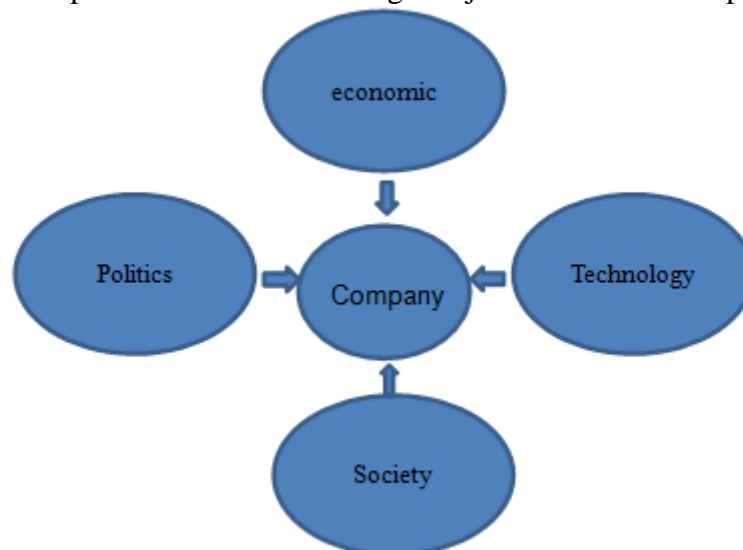


Fig. 2 PEST model

## 2.3 SWOT Analysis

SWOT analysis analyzes the internal and external environment in which the business is located, including internal strengths, weaknesses, and external opportunities and threats.

More comprehensive and systematic analysis of the current situation of enterprises, and to formulate the corresponding development strategy to provide a basis for further evaluation of the core capabilities and future development trends. Among them, S is strengths, W is weaknesses, O is

the opportunities, T is the threats[5]. From the perspective of advantages and disadvantages, the analysis of enterprises is based on the internal environment of enterprises, advantages refer to the internal favorable factors that enterprises can use to improve competitiveness and economic level, enterprises should explore and utilize advantages to promote the sustainable development of enterprises. For example, large enterprises, well-staffed, advanced technology, good reputation and so on. Disadvantage refers to the internal disadvantages of curbing enterprise development and reducing the competitiveness of enterprises. For example, the lack of skills of employees, the structural defects of the enterprise, bad reputation, and so on. From the perspective of opportunity and threat analysis of enterprises is based on the external environment of enterprises, the environment includes micro-environment, macro-environment, including competitors, suppliers, customers and so on, macro-environment including economic environment, natural environment, political environment and so on. With the rapid development of economy and globalization, enterprise development is affected by the great environment, environmental analysis has become a major means of enterprise adjustment strategy. Opportunity refers to the enterprise is more competitive, enterprises can seize the opportunity to develop the external favorable conditions, environment. For example, governments enact laws to strengthen support for an industry, competitors are in a development bottleneck or bankrupt, customers have a tendency to prefer a product, and so on. Threat refers to the external disadvantages and environment that contain more or less factors to restrain the development of enterprises, which will weaken the competitiveness of enterprises, and enterprises need to find adverse factors in time and make adjustments. For example, recession, political turmoil, strong competitors, and so on.

### **3. Case Analysis**

#### **3.1 Company Profile**

Headquartered in Shenzhen, China, B-Share Company was officially founded in 1995, mainly for the production of commercial cars, family cars, batteries, on July 31, 2002 in Hong Kong Main Board, in 2003 the formation of B car and become the world's second largest manufacturer of rechargeable batteries. B company has sufficient advanced materials, independent research and development, production of products, at the same time is the world's leading provider of solar energy and energy storage solutions, products exported to many countries and regions. After the introduction of the world's first plug-in hybrid model in 2008, after the introduction of various new energy vehicles by the public, currently B company mainly produces fuel vehicles and new energy vehicles, in the good business, government policy support, B company in 2015-2017 won the global new energy passenger car annual sales champion. In June 2011, Company B listed, after the listing of the share price fluctuations, but the overall upward trend, the listing price of about 25 yuan, the 2020 share price of about 52 yuan.

#### **3.2 Financial Analysis**

Through the analysis of the financial statements of enterprises for 2014-2018, we understand the accounting indicators and important accounting items of the enterprise, find the potential problems of the enterprise, evaluate the business situation and forecast the development trend. As Table 1 shows:

Table 1. B Automotive Company Balance Sheet Trend Analysis Statistics Table (%)

	2014	2015	2016	2017	2018	
					ratio	Amount (100 million Yuan)
Money funds	0.34	0.51	0.59	0.76	100.00	130.52
accounts receivable	0.28	0.44	0.85	1.05	100.00	492.84
stock	0.38	0.60	0.66	0.75	100.00	263.30
Total current assets	0.35	0.47	0.68	0.89	100.00	1152.11
Fixed assets	0.69	0.74	0.86	0.99	100.00	436.79
Construction in progress	1.13	1.02	0.81	0.80	100.00	56.39
Intangible assets	0.76	0.78	0.79	0.89	100.00	113.14
total assets	0.48	0.59	0.75	0.92	100.00	1945.71
accounts payable	0.45	0.74	0.78	0.93	100.00	251.42
Total current liabilities	0.45	0.57	0.67	0.90	100.00	1165.69
Total Liabilities	0.49	0.59	0.67	0.88	100.00	1338.77
Total shareholders' equity	0.48	0.59	0.91	0.99	100.00	606.94
Total liabilities and shareholder equity	0.48	0.59	0.75	0.92	100.00	1945.71

In terms of balance sheet, company B's total assets and total liabilities have increased. Total assets increased by 52% in 2014-2018 to RMB101,176.92 million, mainly due to the rapid growth in sales of the company's main products, new energy vehicles, and the rapid increase in sales resulting in an increase in liquid assets, including monetary funds, accounts receivable, inventory,

etc. Among them, the rapid growth of enterprise securent assets and the proportion of total assets is large. In 2014-2018, current assets increased by 65% to RMB74,887.15 billion. In 2018, current assets accounted for about 59% of total assets, an increase of RMB74,887.15 billion, or 16% over 2014. From this, it is seen that the liquidity of enterprise assets increased, in which accounts receivable have a greater impact on the substantial growth of liquid assets, its four-year growth ratio of 72%, the amount of 35.48448 billion yuan. Accounts receivable is an important component of accounting elements, and company B's accounts receivable mainly come from the sale of new energy vehicles, and some from unpaid government subsidies. Enterprises in order to improve goodwill to attract investors, through the sale of credit, accounts receivable recovery efforts are not strong enough and the growth rate of the main business is not conducive to the company's production and operation, bad debt risk. B Company needs to focus on reducing accounts receivable, further improve the management of accounts receivable to reduce the occupation of funds. At the same time, monetary funds continue to rise for four consecutive years, the growth rate of 66%, monetary funds are the most liquid assets of enterprises, reflecting the enterprise's short-term solvency and meet the liquidity needs of assets, adequate monetary funds to help enterprises to maintain normal sustainable development. It is worth noting that at present, Company B's inventory consists of raw materials, turnover materials, products and inventory goods, inventory level due to fierce competition in the industry, the company's mismanagement led to a continuous rise, however, inventory will occupy a certain amount of liquid assets, B company should pay attention to, increase inventory management, reduce the level of capital occupation, to avoid the backlog of goods, Improve the speed of inventory circulation, enterprise profitability, to ensure the smooth and efficient operation of enterprises. While the total assets and current assets are rising, fixed assets in non-current assets are also increasing year by year, but the growth rate is slower, with a growth rate of 31%. In the course of expansionary growth, corporate debt is also on the rise, mainly due to long-term borrowing and bond payables. Current liabilities account for about 87% of total liabilities in 2018, indicating that short-term debt repayment pressures are high and debt management needs to be increased. As Table 2 shows:

According to the profit statement, the total net profit and profit of b company 2014-2018 increased by about 80%, net profit increased by RMB2,809.24 million and total profit increased by RMB3.5088 billion. Operating profit increased by 104%, from \$169.68 million in 2014 to 4,242 million yuan in 2018. The profit of the enterprise mainly comes from the profit generated by the main business, and 96.72% of the profit generated in 2018 is composed of operating profit. The company's income mainly comes from the main business income, operating income for 4 years showed a sustained growth trend, and the growth rate is larger. At the same time, operating costs increased by 55% in 2014-2018, mainly due to increased sales costs, sales expenses, financial expenses and impairment losses on assets, all of which increased by about 55%, while management expenses decreased by 18%. The rapid growth in operating income and the slower growth in operating costs over operating income have led to increased profits and improving economic conditions. As shown in Table 3.

Table 2. B company 2014-2018 income statement trend analysis statistics (%)

	2014	2015	2016	2017	2018	
					ratio	Amount (100 million Yuan)
I. Operating income	0.45	0.62	0.80	0.81	100.00	1300.55
Operating costs	0.45	0.61	0.76	0.79	100.00	1087.25
sales expense	0.47	0.61	0.89	1.04	100.00	47.29
Management fees	1.18	1.44	1.82	1.80	100.00	37.60
Financial expenses	0.46	0.48	0.41	0.77	100.00	29.97
Asset impairment loss	0.43	0.80	0.83	0.35	100.00	6.86
Investment income	0.27	4.88	(2.93)	(0.83)	100.00	2.48
3. Operating profit	(0.04)	0.75	1.41	1.28	100.00	42.42
Fourth, the total profit	0.20	0.87	1.50	1.28	100.00	43.86
Deduct: income tax expense	0.16	0.79	1.31	0.85	100.00	8.29
V. Net profit	0.2 1	0.88	1.5 4	1.38	100.00	35.56



Table 3. B Company 2014-2018 Cash Flow Statement Trend Analysis Statistics Table (In RMB 100 million)

	2014	2015	2016	2017	2018
Net cash flow from operating activities	0.38	38.42	-18.46	63.68	125.23
Net cash flows from investing activities	-79.62	-106.06	-134.43	-159.64	-142.31
Net cash flow from financing activities	72.71	87.50	162.70	111.68	39.17

According to the cash flow statement, cash generated by operating activities is the main source of cash inflows, and the net cash flow from business activities increased from RMB038 million in 2014 to RMB12,523 million in 2018, indicating that cash outflows are less than cash inflows. Explain that the company's ability to generate cash flow from operating activities is enhanced, which helps to maintain the normal production and operation activities of the enterprise. The net cash flow from investment activities decreased from -7962 million yuan to -14.231 billion yuan, i.e. the outflow of cash was greater than the cash inflow, indicating that the scale of investment decreased and the investment plan was not appropriate. At the same time, the net cash flow from financing activities decreased from \$7,271 million to \$3,917 million. The net cash flow from investment activities is negative, which is similar to the total net cash flow generated by operating and financing activities, which indicates that the net cash of the enterprise is positive, but the investment activity of the enterprise can not meet the needs of the expansion of the scale of the enterprise, the enterprise needs to consider adjusting the investment plan to improve the cash flow of the enterprise.

### 3.3 PEST-based Strategic Analysis

#### 3.3.1 Political Law

With the increasingly serious pollution of the environment, China attaches great importance to environmental protection, the state has formulated a series of regulations to limit environmental protection and energy use. In 2006, China put forward the spirit of the Outline of the 11th Five-Year Plan for the Development of China's Automobile Industry, emphasizing the ability of independent innovation, promoting the optimization and upgrading of the structure of the automobile industry, encouraging enterprises to innovate independently, develop unique brands and promote sustainable development. In 2017, China issued the 13th Five-Year Plan for Energy Development, which strongly encourages the use of new energy sources, reduces oil consumption, advocates conservation, protects the environment, promotes the production and use of new energy vehicles and improves the fuel economy standards for automobiles. Furthermore, in 2016, the government will subsidize private purchases of new energy vehicles, promote energy conservation and emission reduction for residents, and promote the use of new energy vehicles. Subsidies include: government subsidies for automobile production enterprises, enterprises deduct subsidies and then sell new energy vehicles to buyers; As a result of people's environmental awareness and the government's strong subsidies for the purchase of new energy vehicles, more and more people are buying new energy vehicles.

Therefore, with the support of the government and policies, vigorously developing new energy vehicles is the development trend of automobile enterprises, which is conducive to attracting

customers, improving the economic situation of enterprises and realizing the sustainable development of enterprises. B company seizes the opportunity to innovate, the production of new energy vehicles, market sales are among the best, new energy technology developed, so that B company in recent years, operating income, profit growth, leading the industry to develop a new direction.

### **3.3.2 Economic Environment**

First of all, China's GDP has continued to grow in the past 10 years, the level of GDP increased from 40890.3 billion yuan in 2010 to 9908.65 billion yuan in 2019, the growth rate of 142.32%, can be seen that China's overall economic performance is good, economic development is on the rise, and with the expansion of the economy, Growth will continue. China's comprehensive level has been continuously enhanced, the rapid economic development of various regions, people's lives continue to progress, people are getting richer, disposable income increased, so the demand for material life increased. More and more people meet the physiological, security and social needs of Maslow's demand level theory, and then there is a higher level of demand, that is, respect for demand and self-fulfillment needs, the purchase of new energy vehicles at this level. B company adhering to the "technology for king, innovation-oriented" development concept, with innovative development model and vigorously independent research and development, production of new energy vehicles, product design mixed with modern and traditional elements, and strive to build affordable new energy vehicles. B company under the support of the economic environment, sales continue to improve, visibility, popular favor, continue to expand in the automotive market share, promote the sustainable development of B company.

Secondly, in order to cope with the financial crisis, maintain growth and expand domestic demand, we need to adjust the industrial structure, develop new industries, cultivate new economic growth points and achieve sustainable development. The state focuses on the development of three major industries: one is closely related to end consumption, because consumer demand is relatively stable; Liu Wei, deputy director of the National Energy Administration, said the country is addressing climate change, adjusting its energy structure and maintaining sustainable energy development. And in the "11th Five-Year Plan" proposed to vigorously develop new energy industry, to replace coal, oil, natural gas energy shortage[6]. The government has improved its new energy development plan, formulated incentives, encouraged auto companies to develop and produce new energy vehicles, and increased investment in capital and personnel to promote cooperation among various institutions. In the macro-environment of high government support, it is beneficial to the sustainable development of new energy vehicles of B company.

At the same time, China has formulated a series of fiscal and taxation policies to support new energy vehicles, promote the innovation and development of new energy vehicle technology, in January 2009 issued the "New Energy Vehicle Demonstration Promotion Notice" proposed to subsidize the purchase of new energy vehicles in the field of public transportation, the growth of the new energy vehicle market opened up a new world; In May 2011, the State Council arranged 20 billion yuan in interest-bearing loans to support the technological improvement of the automotive industry, and in 2015 the Ministry of Finance further increased support for the promotion and promotion of new energy vehicles in public welfare industries such as sanitation and public transportation, and issued the Notice on The Policy of Financial Support for the Promotion and Application of New Energy Vehicles for 2016-2020. [7]

### **3.3.3 Socio-cultural**

With the rapid economic development of our country and the world, human exploitation and consumption of energy leads to energy shortage, environmental damage, and global warming. The bad natural phenomenon has aroused the wide attention paid to the development of new energy and the protection of the environment. If the continuous deterioration will restrict economic and social development, endangering people's health. Therefore, in recent years, China and the world strongly support the encouragement of clean new energy, renewable energy development and utilization, promote energy conservation, improve energy efficiency to reduce coal, oil and other

overexploitation, consumption, reduce emissions of pollutants, car companies to fulfill their social responsibilities, actively participate in the research and development and manufacture of new energy vehicles, B Company in the social responsibility at the same time to improve international competitiveness, credibility, to build independent innovation of the production of new energy vehicles, conducive to the sustainable development of enterprises, at the same time, on the basis of the general improvement of people's quality of life, environmental awareness, ecological awareness generally enhanced, General Secretary Xi Jinping in the report of the 19th National Congress of the Communist Party of China clearly stated that We should establish and improve the economic system of green low-carbon cycle development, and advocate the concept of green low carbon reasonable consumption. Green consumption is a consumption concept that keeps pace with the times, and it is also a new requirement of China's social and economic development. [8]

### **3.3.4 Technology Environment**

Automotive technology from the full application of "Panal system" to multi-purpose van (Multi-Purpose Vehicle), automotive technology continues to develop and innovate, automotive competitiveness mainly depends on the improvement of technology, major automotive companies to increase investment in technological innovation, including Volkswagen launched the EA211 engine , combined with the unprecedented cylinder passivation technology, high-pressure cylinder direct injection technology, innovative intake and exhaust system. The engine adopts an integrated design booster and exhaust pipe, effectively alleviate steam delay, increase the conversion rate of exhaust gas, and accurately control the combustion efficiency of the cylinder, use high pressure to improve the effect of fuel atomization, reduce the engine emissions while reducing fuel consumption, in line with the national advocate of energy conservation and environmental protection concept. Due to the improvement of the performance of the Volkswagen engine, the popularity of people, sales increased significantly. This is the common modular platform of Nissan's COMMON Module Family technology. Dongfeng Nissan Xinqijun is the first domestic car to use the CMF platform. Using the latest technology, the platform enables the engine to significantly reduce fuel consumption, improve performance, improve automotive hardware and software, including optimized steering system, make steering more convenient and accurate. The CMF platform makes Nissan's automotive chassis architecture, key components more advanced and stronger by increasing the steel ratio used, and the CMF platform has versatility, compatibility, increased development freedom, use more configurations, improves the general proportion of components, productivity, and reduces the development costs of different models. To enable Nissan to produce higher-level models, more advanced configuration and higher cost-effective, greatly improve the competitiveness of technology, promote car sales. [9]

B also has several leading technologies: battery technology, chip technology, remote driving technology. First, battery technology, B company is the second largest domestic battery manufacturers, has independent research and development, production capabilities, from the production of lithium batteries to new energy vehicle batteries. Replace conventional batteries with lithium iron phosphate batteries to improve battery life and adaptivity to in-vehicle electric appliances. B company production of battery safety accident incidence is small and battery replacement frequency is not high, that is, safety and continuity, by the public's favor, for the development of China's automotive batteries to point out the direction. Second, chip technology, although efficient and long-lasting battery is conducive to the production and development of new energy vehicles, but the efficiency improvement is still limited, so the development of IGBT chip technology is the most effective, the most core. B company independent research and development of IGBT chip, the chip can efficiently use electricity, improve efficiency, in the same driving distance of the car to use less electricity, energy conservation and emission reduction, environmental protection has made a great contribution. Remote driving technology is A company B has a patented technology, the initial embodiment of "driverless", is B company's technology intelligent development and leading embodiment. The technology builds the automobile's internal intelligent system, software, including intelligent key system, electronic throttle, electronic brake and so on. Drivers can use the car's intelligent controller to operate the vehicle start, forward,

reverse, steer, etc. The fixed of the forward disk. At the same time, B company has a perfect unified enterprise system, from the development of batteries to the production, integration of a car has a complete, large-scale, well-managed industrial chain. B company with the support of the government, effective use of the company's perfect hardware and software and professional research and development team, with independent research and development, production of new energy vehicles, so that production, sales are among the best, to promote the company's sustainable development.

### **3.4 B Company's SWOT Analysis**

#### **3.4.1 Opportunity Analysis:**

##### 1. Policy support

In the past ten years, China has formulated and revised laws on environmental protection. Such as the "China's automobile industry" 11th Five-Year Plan for Development Planning, energy development "13th Five-Year Plan", all advocate conservation, environmental protection, encourage enterprises to independent innovation, reduce oil consumption, promote the production of new energy vehicles. Any industry needs to rely on macro-environment development, so in the national government's attention to the new energy industry and support, China's new energy enterprise industry has a clear development prospects, for the development of B company provides a foundation and opportunities.

##### 2. Change of consciousness

Because of the large amount of atmospheric pollutant emissions, environmental pollution is becoming more and more serious, the phenomenon of global warming, the residents' lives and health have a negative impact, so residents gradually increase their awareness of environmental protection, advocating to reduce environmental pollution, low-carbon travel. And in 2016, the government subsidized private purchases of new energy vehicles, which played a positive role in promoting energy conservation and emission reduction for residents. Due to the change of residents' consciousness and government subsidies, the purchase of new energy vehicles by residents is a trend to promote the rapid development of the new energy vehicle industry.

##### 3. Technology development

Under the support of national policy, promote the construction of new energy vehicle charging infrastructure, charging piles develop rapidly. In the past five years, the state has subsidized charging infrastructure and proposed to establish at least 4.8 million decentralized charging piles by 2020, bringing the proportion of charging piles and new energy vehicles to 1;1, to solve the problem of charging new energy vehicles difficult and to improve the convenience of new energy vehicles. In the era of big data and Internet, enterprises have set out to develop intelligent charging piles, with the aim of solving the urgent charging needs and improving the customer experience and charging efficiency of new energy vehicles through information sharing and information opening and intelligent matching of new energy vehicles and charging piles.

#### **3.4.2 Threat Analysis**

##### 1. More competitors

With China and even the world's strong advocacy for the use of new energy vehicles, the government attracts more and more enterprises to increase the development and production of new energy vehicles, the number of competitors increased. Competitive pressure is not limited to domestic, such as: BAIC, SAIC, Jianghuai and so on, but also from abroad, such as: Tesla. The sales of these brands' new energy vehicles are increasing rapidly and the brand influence is increasing. In 2019, global sales of new energy vehicles were about 2.21 million, of which Tesla was the first, with sales of about 360,000, B company sales of about 230,000, BAIC New Energy sales of about 160,000, SAIC Group sales of about 140,000. The market competition in the new energy vehicle industry will be very fierce in the future, so B company needs to enhance the soft and hard strength of enterprises, in most of the competitors stand out, attract more buyers, promote the sustainable development of enterprises.

## 2. Policy changes

In 2017, China introduced and began to implement the policy of high slope, because the subsidy policy adjustment is too fast, the subsidy deplete rate is too large, the automobile enterprises in the short term can not fully digest the negative impact of the subsidy deplete policy, pass it on to consumers, improve the price of new energy vehicles. A large impact on the new energy vehicle market, sales volume is reduced, the normal production of the entire industry, research and development and product development are affected, not conducive to the development of the new energy vehicle industry. [10]

New energy vehicles belong to The main business of B company, new energy vehicle business revenue accounted for more than 40% of the total revenue, however, new energy vehicle sales are more dependent on government subsidies, government subsidies downfall policy led to B company's new energy vehicle sales decreased. And The increase in business costs of Company B is not enough to make up for the increase in costs, and the decrease in profits has a negative impact on the company's performance.

### 3.4.3 Advantage Analysis

#### 1. Technical advantages

B company has independent research and development, production of batteries and automobiles, with a mature technology model, core technology, special components, especially in new energy, lithium iron phosphate, IGBT chip technology has made a breakthrough, so that B company's competitiveness.

#### 2. personnel advantages

B company has a total of about 150,000 employees, including experienced technical personnel and innovative thinking of young engineers accounted for 10% of the total number of employees, employees in their respective duties, engaged in different research and development projects, so that B company on the basis of high technology to pursue innovation, attracted a large number of car lovers to buy.

#### 3. Cost advantages

Company B emphasizes strict control of costs, effectively reducing costs from research and development, manufacturing, management, etc., such as the rational allocation of the proportion of experienced technicians and young employees, thereby reducing research and development costs; Minimize the number of managers, focus on core technology departments, and reduce the cost of managing the business.

### 3.4.4 Disadvantage Analysis

#### 1. Technical disadvantages

For electric vehicles, batteries and motors are important components. B company independent research, production, the use of iron phosphate lithium battery. Although the battery is highly safe and resistant to high temperatures. However, compared with the lithium cobalt battery used by Tesla Motors, the lithium iron phosphate battery is less efficient in charging and discharging, which restricts the speed of the car. At the same time, Company B uses permanent magnetic synchronous motors, which are more efficient and more powerful than the asynchronous motors used by Tesla. However, there are still technical limitations and more expensive, restricting the development of new energy vehicles.

#### 2. Economic disadvantage

Because China encourages the production and use of new energy vehicles, so in the early stage of the development of new energy vehicles, the state subsidies B company, and the subsidy amount is higher. With the support of the national government, Company B's revenue and profits increased significantly. But in 2017 subsidies receded and Company B's net profit began to fall, as a result of reduced subsidies for Company B's electric buses. It can be seen that B company profit, profitability is unstable, by national policies, subsidies, the impact of large. In order to really enhance the business, profitability and international competitiveness, B company needs to reduce the dependence on state subsidies, improve the hard strength of enterprises.

B company is currently in the s-S-O stage of strategic development, the company can increase investment, improve the market share and brand influence. The SWOT analysis diagram is shown in Table 4.

Table 4. B SWOT Analysis Chart

<p style="text-align: center;">Advantage:</p> <ol style="list-style-type: none"> <li>1. Technical advantages : independent research and development capabilities</li> <li>2. Personnel advantage : experienced and innovative employees</li> <li>3. Cost advantage : reasonable arrangement and minimized cost</li> </ol>	<p style="text-align: center;">Disadvantage:</p> <ol style="list-style-type: none"> <li>1. Technical disadvantage : low battery charge and discharge efficiency</li> <li>2. Economic disadvantage : large dependence on government subsidies</li> </ol>
<p style="text-align: center;">Opportunity:</p> <ol style="list-style-type: none"> <li>1. Policy support : formulating environmental protection laws and regulations</li> <li>2. Awareness change : residents' awareness of environmental protection has increased</li> <li>3. Technology development : more charging piles</li> </ol>	<p style="text-align: center;">Threat:</p> <ol style="list-style-type: none"> <li>1. Many competitors : fierce competition at home and abroad</li> <li>2. Policy changes : subsidy policy</li> </ol>

## 4. Summary

### 4.1 Problems and Suggestions for the Development of B Company

In recent years, b car company operating profitability exposed problems, reduce the competitiveness of enterprises, is not conducive to the sustainable development of enterprises, performance in the profit margin has been reduced, mainly due to sales costs and financial costs caused by the increase. From the company's 2014-2018 profit statement, it shows that from 2014 to 2018, the company's sales and financial expenses increased by about 55%, although the management costs decreased, but the decline was smaller than the increase in other costs. The increase in sales costs was mainly due to two points. First, the scale of enterprise sales, channel expansion, in the era of big data, B company to open online and offline sales methods, increase advertising investment and the implementation of a series of preferential measures to attract consumers to buy, increase the cost of corporate sales. Second, because of the increase in the number of employees in B company, with the expansion of sales scale and channels, enterprises recruit more employees, resulting in the increase in employee compensation, i.e. labor costs. The increase in financial expenses is due to the increase in interest generated by liabilities, in recent years b Company increased investment, expand the scale of sales, capital requirements, and continue to generate long-term and short-term liabilities, from the 2014-2018 company's balance sheet, the current liabilities increased by 55%. To reach RMB116.569 billion in 2018, total liabilities will increase by 51% and by RMB133.877 billion in 2018, as Company B's annual interest payments on high liabilities increase.

Effectively reduce all kinds of costs, improve profit ability, enhance the profitability of the company's operations is the key to obtain competitive advantage and achieve sustainable development. Enterprises need to improve marketing means, strategies to ease the expansion of enterprise sales, increased channels and increased costs, improve the hard strength of the car is the key, enhance technology, get the favor of consumers, thereby expanding visibility, reduce non-essential advertising investment costs; Moderately reduce the high off-line channel sales mode, need to investigate the effective information access channels of consumers, so that more consumers understand and buy B company's new energy vehicles, improve corporate reputation, visibility, reduce promotional preferential measures, reduce sales costs. At the same time, enterprises need to reduce the cost of financial expenses caused by borrowing, due to the expansion of the scale of enterprises, increased capital investment, the need to effectively manage the use of funds, enterprises should be corresponding to accounts receivable for scientific management, promote accounts receivable recovery, reduce accounts receivable bad debts. It is necessary to strengthen the management of accounts receivable and restrictions on borrowing, establish a credit rating system, assess whether the borrower's conditions meet the standards, strengthen contract management, and clearly and strictly stipulate the term, amount and so on.

#### **4.2 Forecast for Company B's Prospects**

Although Company B faces many threats and disadvantages, there are still good prospects.

The national government promotes green and environmental protection and encourages the use of new energy sources. General Secretary Xi Jinping stressed that the development of new energy vehicles is the only way for China to move from a big automobile country to a major automobile country, and we should step up research and development of new energy vehicles. And with people's awareness of environmental protection more and more, the number of consumers buying new energy vehicles increased, new energy vehicle sales grew rapidly, to the company brought a lot of profits. Under the support of good external macro conditions, conducive to the rapid development of the new energy vehicle industry, the future goal of China's new energy vehicles is to occupy 10%-15% of the market.

At the same time, Company B has a competitive advantage in the industry. Including advanced battery technology, chip technology and a sound enterprise system. B company is the second largest battery manufacturer in China, has independent research and development, production capabilities, from the production of lithium batteries to new energy vehicle batteries, B company independent research and development of IGBT chips, can efficient use, improve efficiency, energy conservation and emission reduction, environmental protection has made a great contribution. At the same time, B company has a sound system, B company from the development of batteries to production, integration of a car has a complete, large-scale, well-managed industrial chain. As a result, Company B will be able to stand out as a leader in the industry in the future.

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