



**Graduate School of Business**

**Siam University**

**Development Prospect of Electric Vehicles in the Automotive Market of China**

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## **Abstract**

Now day in China, the purchasing power of Chinese consumers is constantly increasing, buying cars is a hot topic for Chinese consumers. Purchasing cars is not difficult for average Chinese consumers due to higher per capita incomes and the growth of the automobile industry. Most families can afford a car. China faces this huge consumer demand. However, due to environmental pollution caused by ordinary cars and huge energy consumption, the Chinese government has promulgated a series of car purchase restrictions and vehicle emission standards. However, this series of measures still cannot alleviate and balance consumer demand for cars as well as a series of automotive environment and the shortage of energy and resources. As Chinese consumers increasingly demand cars, the Chinese government must balance the environmental pollution caused by car consumption with the huge energy consumption.

From now until the next decade maybe two or three-decade China will face the situation that supply and demand, energy shortages and harsh environmental pollution. The electric vehicles are clearly a good way to solve this contradiction. So, in the future in the Chinese vehicle market the electric vehicle will have a huge demand. This study is helpfully for both consumer and the manufactory in China.

New energy vehicle is the inevitable trend of the development of human automobile industry, and the electric vehicle is one of the best new energy vehicle for the future, in the paper the author finds out development prospect of electric vehicles in China automotive market. This study the author uses survey and questionnaires to find out the relationship between (1) the mature and stable level of electric vehicle technology in the China market, (2) the affordable and reasonable price of electric vehicle in the China market, (3) the understand level of the advantages

and characteristics of electric vehicles in the China market and the development prospect of electric vehicles in China automotive market.

After the author analyzed the data from the questionnaire and survey, the factor matures and stable of electric vehicle technology is the most important factor that influence the consumer make a buying decision in the China market and it will strongly affect the development prospect of electric vehicles in China automotive market. The second factor is the affordable and reasonable price of electric vehicle in the China market and this factor also moderate influence the Chinses development prospect of electric vehicles in China automotive market. Last but not least the understand level of the advantages and characteristics of electric vehicles in the China market moderate to the development prospect of electric vehicles in China automotive market. The three factors that in the hypothesis has played an important role when consumers purchase an electric vehicle.

The last chapter, the author summed up the main points of the article. Electric vehicle will become the mainstream of the future vehicle market. China has a huge demand for electric vehicles. Development prospect of electric vehicles in China automotive market will be promising, and the three factors in the hypothesis truly affect the development prospect of electric vehicles in China automotive market.

**Keywords:** Electric Vehicles, Automotive Market, China, Development Prospect

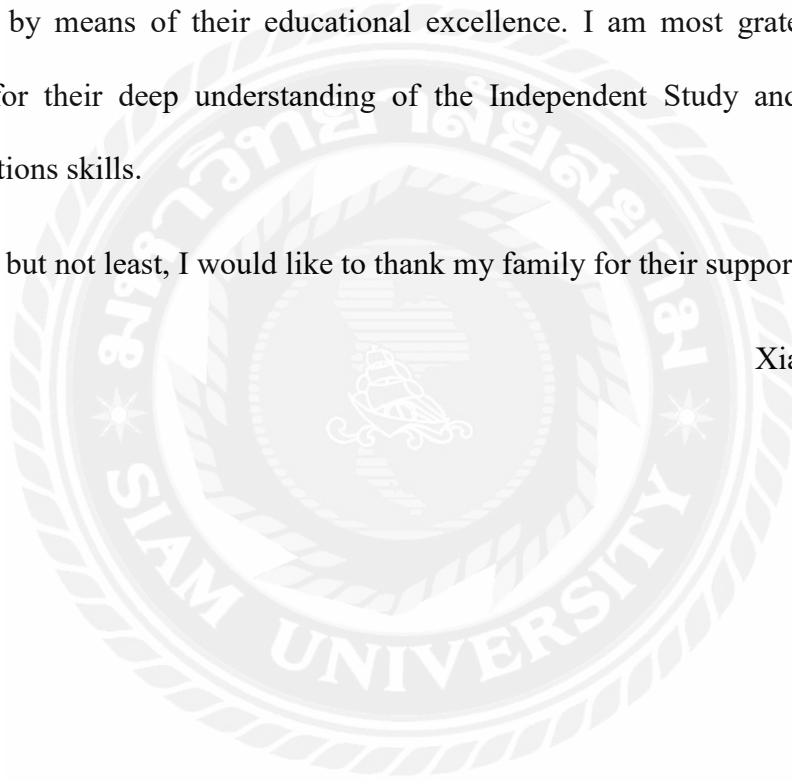
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## **Chapter 1**

### **Introduction**

In the author's opinion, the most important invention of the 20th century was the automobile. The invention of the automobile has driven the development and integration in many fields all over the world. As an important scientific and technological invention in the 20th century, the automobile triggered a revolution in the transportation industry around the world and promoted the progress of society and the integration of the world. In today's society, automobiles as a major carrier of transport and modes of transport have fundamentally changed the way people travel. Into the new century, the global auto industry opened a new era.

After the world financial crisis in 2008, some traditional automobile enterprises closed down one after another, and the pattern and development direction of the global automobile industry changed. In the face of increasingly serious resource shortage and environmental pollution, all countries have locked the focus of their future automobile development on new-energy vehicles one after another and adopted a series of measures and funds to promote the development of new-energy vehicles and seize opportunities in development so as to seize the global market. However, with its structural advantages, low resource consumption rate and zero emission, pure electric vehicles will surely become the pillar of the industry in the future rapid development. The development of efficient and low-emission pure electric vehicles has become an irresistible inevitable trend of the global automotive industry.

China, in the country that the author comes from, along with the rapid development of the national economy, China's automobile industry surpassed 140 million units rapidly after its entry into the WTO over the past decade or so. The automobile industry

has been rapidly developed. The automotive industry has gradually become the main source of economic development in our country Leverage and Accelerator to Promote Progress. It can be said that China has entered the automobile age.

Meanwhile the automobile production and sales are increasing day by day, the development of China's traditional automobile industry also presents many problems. In recent years, the volume of China's oil imports has risen year by year, reaching nearly 300 million tons. Imports accounted for more than 50% of total consumption, while transportation accounted for 40% of total energy consumption in China. The huge amount of oil entering the absolute amount of oil and living in dependence on foreign oil is bound to be a serious threat to the country's energy security. Environmental pollution, automobile exhaust is the key factor that causes local environmental pollution, air pollution and wet room gas emissions. In general, about 35% of air pollution comes from transportation, China's carbon emissions from tail gas account for a quarter of the global carbon emissions, and virtually aggravate the wet room effect. According to the official investigation and analysis, the air quality in our cities has reached the level of national standards of less than 8%. At the same time, noise pollution generated by cars is also an environmental issue that cannot be ignored. Second, energy security issues. Traditional cars need to generate power through the combustion of oil, very dependent on resources, fuel consumption is also huge.

The continuous growth of the national economy and consumer purchasing power have laid a solid foundation for the development of the automobile industry. With the accelerating process of urbanization, the rapid development of secondary and tertiary automobile markets will also drive the growth of the automotive market. Good policies for the automobile industry are still continuing, and the launch of the new policy from the government with energy-saving and new-energy automobile subsidies

will further stimulate the electric vehicle market.

The development of new energy vehicles in China will be a hot and major topic for the next 30 years. Electric vehicles are also an important part of new energy vehicles. I will focus on this topic in this paper to study. The topic is “Development Prospect of Electric Vehicles in China Automotive Market”.

### **Background of the Study**

In China the electric vehicle is a new type of strategic industry. Its technology research and development and industrialization are still at the primary exploration stage. At present, the research on electric vehicles mainly focuses on the theory and practice of research and development industrialization policies. Electric vehicle projects are generally led by the government, enterprises and research institutes to participate, so most of the relevant theoretical research on electric vehicles in government, enterprises and research institutes, industrial analysis, technical analysis or project results report to present. At present, while the production and sales volume of automobiles in China increases at a rate of 25%, the pollution of the environment and the consumption of energy also increase day by day. Under the national "low-carbon economy" and the strategic context of sustainable development, the development of new-energy vehicles, especially pure electric vehicles, has become the only way to solve the dilemma. Although China's automobile industry started relatively late and lagged behind the developed countries for decades, it has been in an awkward situation of backwardness and backwardness in the technical research and development, development concept and manufacturing process of traditional fuel vehicles. However, in contrast, China has planned the deployment of new energy vehicles in 2003, at least in terms of time compared with the western new energy vehicles industry that started in the late 1990s. From a technical point of view, our country lags behind the advanced western countries

in 20 years in terms of traditional automobile manufacturing, but has only a small gap in terms of new energy vehicles.

In the field of electric vehicles, some of China's key technologies in the electric vehicle manufacturing industry are far ahead of many developed countries. An automotive manufactory named “BYD” is a good example in the case.

In this paper, the author systematically studies the development environment, existing advantages and disadvantages, the opportunities and threats we face in China's pure electric vehicle industry, and put forward the countermeasures for the development of China's pure electric vehicle industry. The development of electric vehicles also provides a significant development opportunity for China's automobile industry. Under the guidance of a scientific and reasonable development strategy and policy system, China's electric vehicle industry can seize the opportunity and vigorously improve the research and development level of electric vehicles and industries the level of development. The field of electric vehicles to catch up with foreign advanced level of automobile industry and enhance the overall level of China's automobile industry. In China, the development of the pure electric vehicle industry has just started, and the academic community has little research on the development strategies of this kind of new energy vehicles. Through the research in this article, the author also hopes to fill the gap in this field to a certain extent, Provide a reference and reference for the development of Chinese electric vehicle industry.

### **The Problem to be Investigate**

Base on the huge demand of vehicle and the environmental pollution and energy shortages situation in China, the author finds out a green field in the Chinese vehicle market, it is the electric vehicles. The development prospect of electric vehicles in

China automotive market might be promising, but how? Obviously, the above problem already exists, and the answer we have to find in the article is how let the development prospect of electric vehicles in China automotive market become promising.

The vehicle manufactory should find more potential customers and increase the demand of electric vehicle. This study will focus on three factor that can be affect the development prospect of electric vehicles in China automotive market, and it also influence the consumer in China that willing to buy a vehicle.

(1) Is the mature and stable level of electric vehicle technology in the China market affect the development prospect of electric vehicles in China automotive market?

(2) Is the affordable and reasonable price of electric vehicle in the China market affect the development prospect of electric vehicles in China automotive market?

(3) Is the understand level of the advantages and characteristics of electric vehicles in the China market affect the development prospect of electric vehicles in China automotive market?

### **Objective of the Study**

This study Uses survey and questionnaire collect the data and analyze the date to display the result. The study will use the questionnaire that all the questions will be related to the three problems:

(1) To find out the correlation between mature and stable level of electric vehicle technology, the affordable and reasonable price of electric vehicle and understand level of the advantages and characteristics of electric vehicles with the development of electric vehicles in China market.

(2) Explore the most important factor that will be affect the Chinese electric vehicle industry from the consumer side and consumers pay more attention

to which factor.

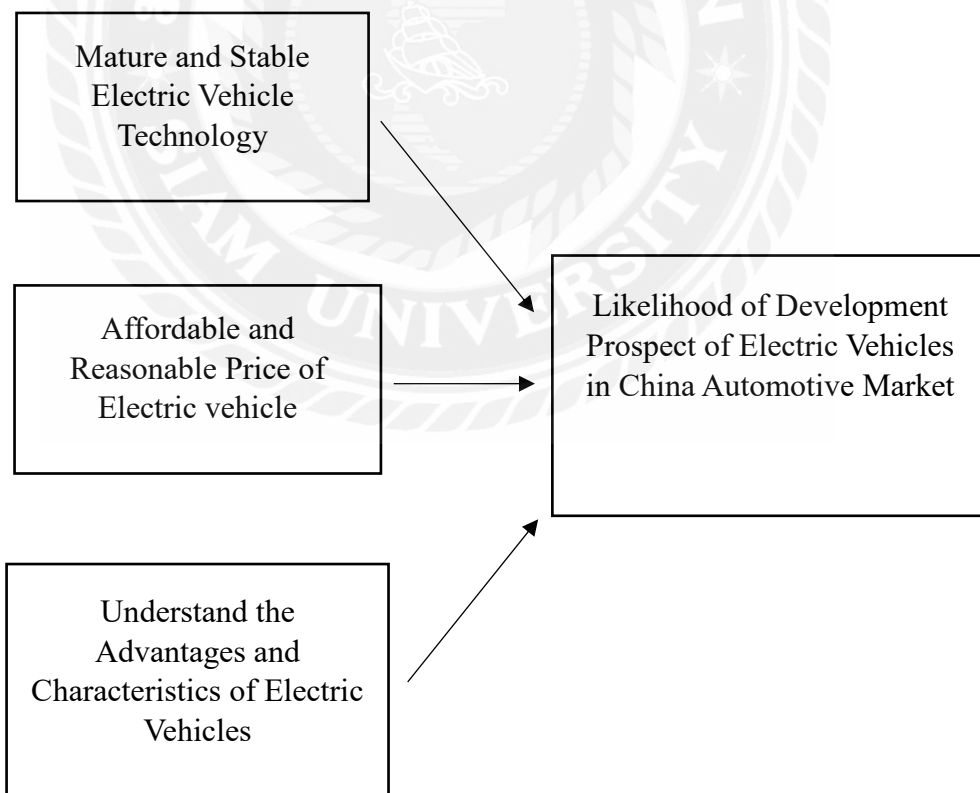
- (3) To study the consumer psychology that makes buying decision and consumer motivation.

### **Scope of the Study**

The study is helps both manufactory and the consumer in China that explore the key point influence the development of electric vehicle in the China market.

Huge demand of electric vehicle in the following decade, manufactory is trying to discovery the selling point of electric vehicle and what the consumer really considers about the electric vehicle. On the other hand, the consumer would like to know that key point that makes a buying decision for an electric vehicle.

### **Conceptual Framework**



## **Chapter 2**

### **Literature Review**

#### **2.1 Research and Current Situation of other countries electric vehicles**

In Japan hybrid vehicle technology and industrialization research and development and implementation of the situation, focusing on rechargeable hybrid electric vehicles, electric vehicles in the research and development and industrialization of the national policy system and the overall development strategy and other content, he stressed that the whole society Jointly participate in the formulation and promotion of the research and development of electric vehicles.

In May 1998, Japan released a green tax system aimed at alleviating green car taxes and increasing the burden on traditional environmentally-conscious fuel-efficient cars, and encouraged the development of electric vehicles with a sound tax policy. In August 2005, the Japanese government enacted a Green Procurement Act that included hybrid vehicles, fuel cell vehicles and pure electric vehicles into the government's priority procurement scope and promoted by the government a government-led strategy to promote the industrialization of electric vehicles.

John R Wilson and Griffin Burgh (2003) released a research report on hydrogen energy, the report on the preparation of hydrogen energy methods, mode of transport, access to such content, the study concluded that although the oxygen energy is a pure clean energy, the combustion process will not produce any harmful Gas and greenhouse gas have great potential to replace existing petroleum fuels. However, due to the current large-scale application of hydrogen energy, there are still many problems in terms of technology, thermal power loss and safety. At present, the supporting infrastructure of gas energy, serious development lags behind, so the United States to develop oxygen

energy will face many economic and technical difficulties.

Joseph Romm (2004) assesses the Freedom CAR project and expects to see an explosion of oxygen and fuel cell vehicles by the end of the year.

Fuel cell vehicles are the focus of the long-term development of Japan's electric car industry. In 2003, the Ministry of Land, Infrastructure and Transport set up a special research institute to explore various issues involved in research and development with promotion of fuel cell vehicles and make various preparations for the smooth progress of such electric vehicles

Hasishi Ishitan (2007) in the article named 【 Overview of Japan's Efforts On Plug-Hybrid Vehicle】 Analyzed Japan's hybrid, pure electric vehicles and their policies and regulations, development strategies, main objectives, etc., and strive to build a nationwide participation of all walks of life to support pure electric vehicle research and development system.

Yoichi Kaya (2005) in the article 【Research Intitule of Innovative Technology for the Earth】 mentioned that Proposed that ammonia can have a place in the development of new energy vehicles in the future, and that fuel cells, as the main driving energy for pure electric vehicles, will become the development direction in the future and meanwhile put forward suggestions on matching with related facilities.

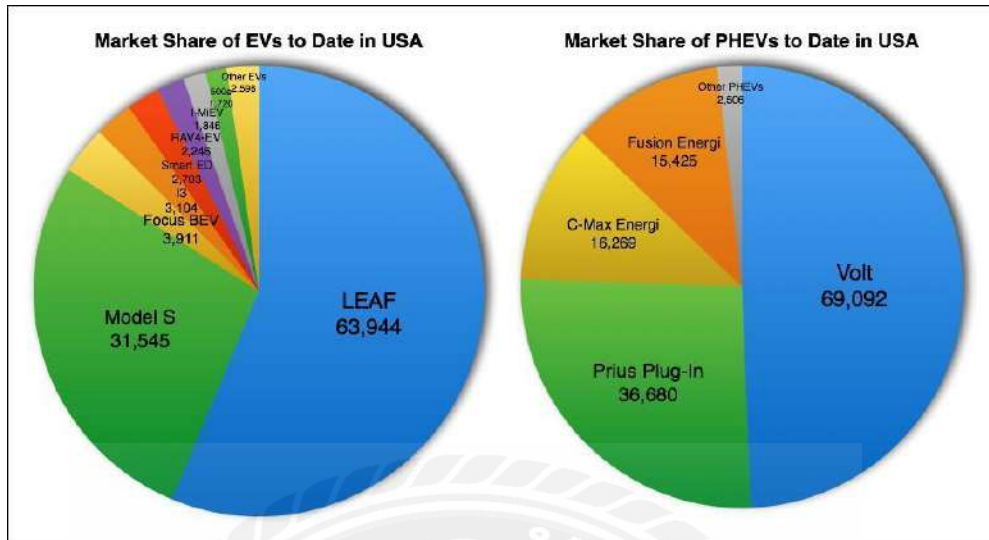




Currently, Japan is at the forefront of hybrid electric vehicle technology in the world. Toyota Motor Corporation of Japan is walking in the forefront of hybrid vehicle research and development of automotive companies, hybrid technology, Toyota has mastered more than 200 hybrid patents. Toyota has been exploring hybrid technology since 1993, and after three years, started mass production. In January 1998, Toyota first launched the world's first mass-produced hybrid Prius in the Japanese market. It started exporting to North America in February 2001 and began exporting to Europe in the same year. Since its listing in the first half of the year, Toyota has been in full operation many countries in the world go on the market and the global cumulative sales volume has exceeded 420,000. In March 2002, Toyota introduced "ESTIMA" hybrid cars and "Crown" sedans equipped with soft hybrid systems. Toyota has been at the forefront of the world in terms of reducing fuel consumption, reducing emissions and improving drivability of hybrid systems.

In the U.S. the brand "TESLA" still the best electric vehicle producer in the world, the reason why TESLA become success there is an inseparable relationship between the U.S. government's strong support of technology and capital. The U.S. government attaches great importance to the cultivation of talents, and its personnel training has a clear structure and hierarchy. The cultivation of graduate scientific research personnel is supported by the federal government, while the training of skilled personnel in community colleges is undertaken by the district government. For example, the University of Michigan training of automotive researchers is carried out in the master's degree stage, with the United States General Motors, the United States Ford, Chrysler and other three major companies, the course by the "Automotive Research Center (Automotive Research Center, ARC) to bear.

BEV Market Share in U.S. vs. Left – PHEVs Market Share in U.S.



(Insideevs.com)

Tesla is the representative brand of American electric vehicle. In this study author will use Porter's Five Forces and the growth–share matrix on Tesla.

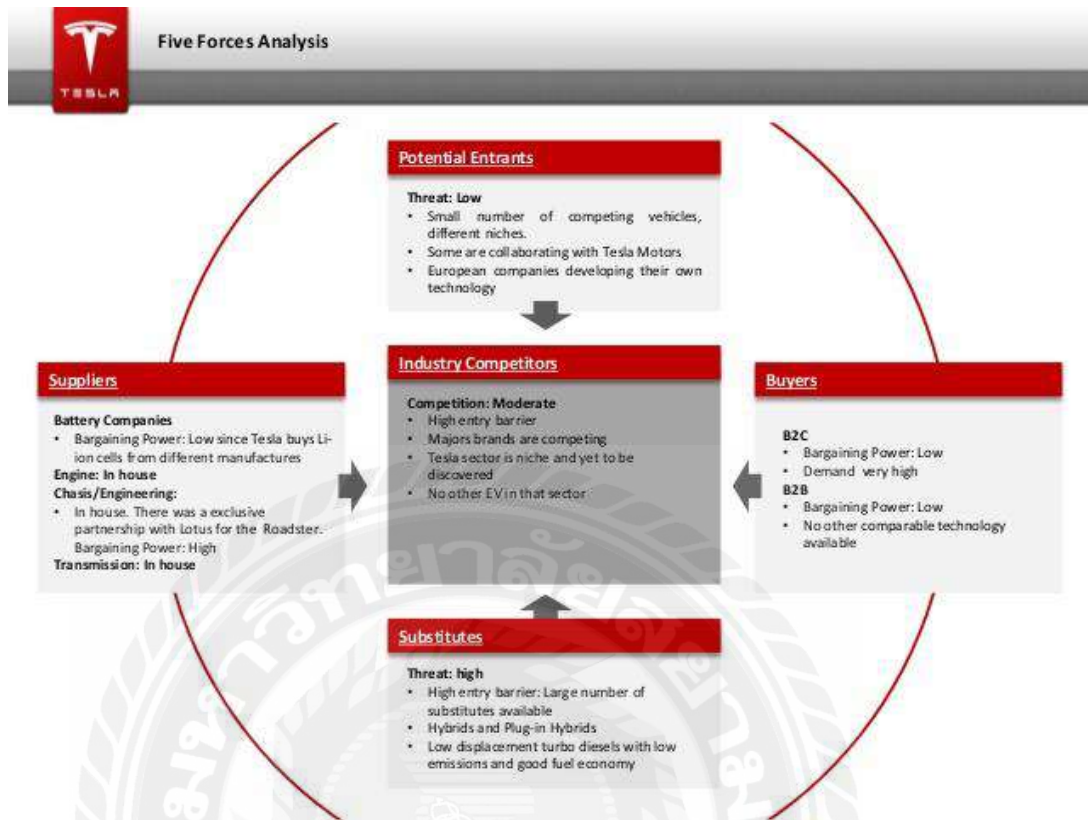
The growth–share matrix on Tesla

### The Electric Car Market



(waitbutwhy.com)

## Porter's Five Forces on Tesla



The main conclusions are as follows:

(1) Low market share of electric vehicles and huge market capacity, which provides Tesla with a good external environment.

(2) Tesla Motors is widely known in China's automobile industry due to its strong research and development capabilities and marketing capabilities. In the future, as the maturity of automobiles increases, the future development will be favorable.

(3) According to the analysis of market positioning and consumer behavior, Tesla's market positioning is more accurate and succeeded in capturing the characteristics of a minority of rich people who are more concerned about the public image. In this niche market, won a good reputation.

(4) From the marketing model point of view, Tesla in the sales model, relying

on the Internet to sell the brand, build experience store and cooperate with e-commerce.

China's research on new energy vehicles is also mainly concentrated in the theory of research and development and industrialization. Cui Xin Cun (2007) introduced the definition of new energy vehicles and their development routes, and explained the importance of developing new energy vehicles. Huang Zhenbang and Wu Sen (2007) summarized the characteristics of different types of HEVs, studied their development status, and prospected their development prospects. Luo Shao-wen (2008) studied the development strategies of new energy vehicles in various countries and proposed strategic proposals for the development of China's new energy vehicles on the basis of this. Li Hongzhi (1997) summarized the strategy of promoting electric vehicles in foreign countries and put forward some suggestions on the development of electric vehicles in China. White Wood and Zhou Jie (2003) analyzed the development of the industrialization of electric vehicles in our country, and put forward specific policy suggestions. Inizaka (2007) analyzed Japan's new energy industry development model, explained in detail the development of Japan's new energy industry motivation, the relevant policy system and its research and development application pattern.



New energy vehicle technology belongs to a kind of emerging technology, and its technology is more difficult. Therefore, research on new energy vehicles in foreign countries is mainly conducted in developed countries such as the United States, Japan, the United Kingdom and France, and is mainly concentrated in technology research and

development and industry.

## **2.2 Electric Vehicle Subsidies**

Electric vehicle subsidies implemented in various countries in the world are generally subsidized vehicles for consumers, car purchase there are many forms of subsidies, it can be a certain amount of compensation, and it can be a certain degree of allowances. In 2006, United States implemented provides that the government provides consumers up to the maximum amount to buy hybrid vehicles\$ 3400 tax credit (Energy Policy Act, 2005)

The "Green vehicle purchasing promotion measure" adopted by Japan's parliament in the year stipulates that the government will provide pecuniary subsidies of up to 100,000 JPY and tax breaks for consumers who purchase Environmentally Friendly Vehicles. (JAMA,2010)

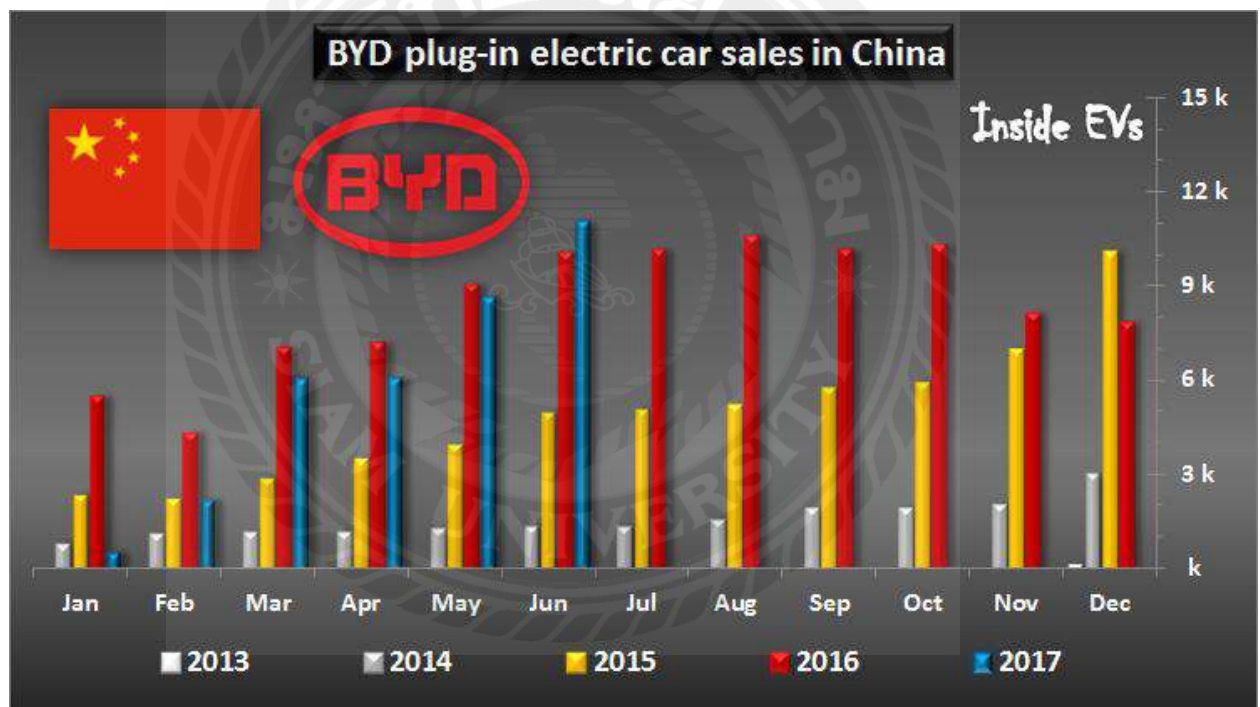
### **1. BYD New Energy Electric Vehicle Business Development Overview**

BYD Co Ltd is a Chinese manufacturer of automobiles, buses, forklifts, rechargeable batteries, trucks, etc. with its corporate headquarters in Shenzhen. It has two major subsidiaries, BYD Automobile and BYD Electronic. (www.byd.com)

On BYD company research, Liu Zhiwei (2010) in Japan, the United States, the EU's new energy vehicles Industrial government support measures were analyzed in detail. Wang Xiaojie (2010) analyzed BYD's industry the profitability of the value chain and its new energy automotive business. Wang Quanxiu, Li Zhen (2010) to BYD business management model conducted a detailed analysis and analysis of its competitiveness.

In terms of new-energy electric vehicle manufacturers, the traditional car manufacturers in the United States, Japan, Germany and France dominate the global

new energy automotive market. Among them, Ford, Nissan, Chevrolet, Volkswagen, Renault, Mitsubishi and Toyota of the major developing countries have a good performance and a high market share; emerging car manufacturers, Tesla become the only one not involved in the traditional car manufacturing world's leading new energy vehicle manufacturers. BYD, on the other hand, benefited from the promotion policy of new energy vehicles in China. In the short term, the technology reserve of new energy vehicle was commercialized and enjoyed rapid growth. While leading the domestic new energy vehicle market, BYD was also among the world leading new energy vehicles Manufacturers of the ranks.



#### BYD overall development overview

BYD as the current domestic market, the largest production scale, the largest sales, new energy technology leader in new energy electric car manufacturers, vendors, has been to actively explore the field of new energy electric vehicles, pure electric vehicles as its' three green Dream "(that is, pure electric vehicles, storage power plants,



solar power plants), BYD has been focused on the development of strategic areas.

Tesla is BYD is main competitor in the global electric vehicle market and in China's domestic market. In the year 2018, TESLA will establish a new manufactory in Shanghai, China.

2014, 2015 List of Sales of Major New Energy Vehicle Manufacturers in the World

RANK	BRAND	SALES (2015)	SALES (2014)	Growing Rate (%)	Share (%)
1	BYD	61726	18358	236%	11
2	TESLA	51598	31623	63%	9

(Blomberg)

BYD through the integration of automotive technology and battery technology platforms to solve the energy shortage, excessive emissions of carbon dioxide and air pollution Global solution to the problem. BYD new energy electric vehicle development rooted in the market, based on customers, adhere to the core technology innovation as the core, firmly grasp the people-oriented development concept, through the vertical integration, cost-effective and high-end innovation strategy to create effective Of the product competition; the use of kangaroo model, make full use of internal resources to achieve cross-border development of the advantages of the field, the formation of the polymerization effect of resources in order to achieve the diversification of the entire industrial chain development; through overseas market strategy, build with international influence and competitiveness The internationalization of new energy automotive companies.

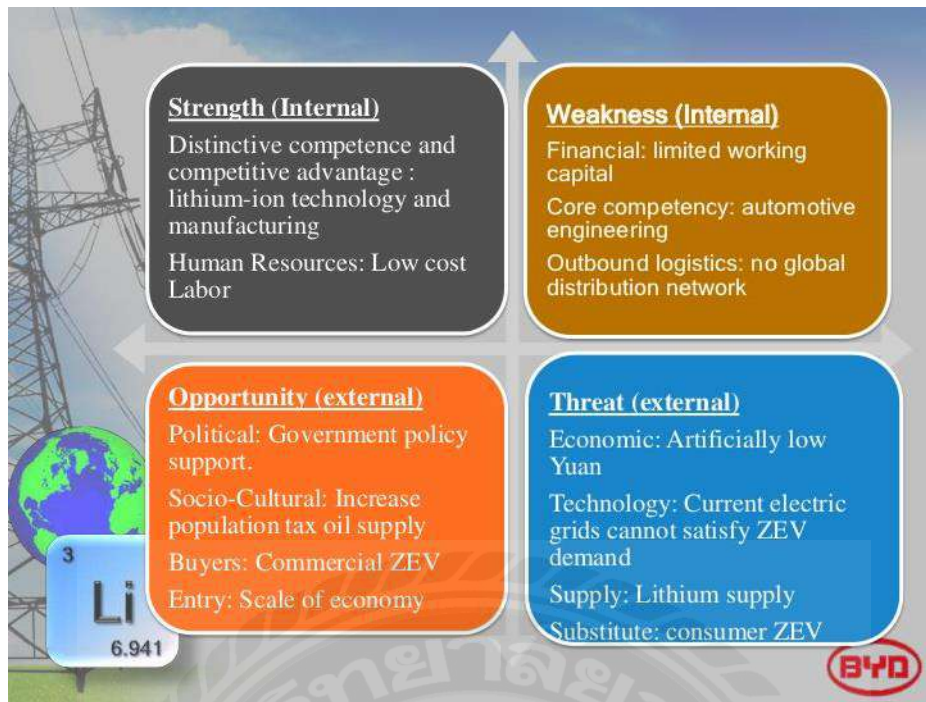
New energy vehicles, according to our country on July 1, 2009 the "new energy vehicles manufacturing enterprises and product access management rules" is defined as

the use of unconventional vehicle fuel as a source of power (or the use of conventional cars Fuel, new vehicle-mounted power plant), advanced technologies for integrated power control and drive of vehicles, advanced vehicles with new technologies and structures. Its classification includes pure electric vehicles, extended range electric vehicles, bubble hybrid vehicles, fuel cell electric vehicles, ammonia engine vehicles, other new energy vehicles. Among them, the new energy electric vehicles as the current market mainstream new energy vehicles, including pure electric vehicles, plug-in hybrid vehicles. At present, BYD new energy vehicles adhere to the concept of safety, efficiency and low cost to abandon normal battery, fuel cell and ammonia battery technology development direction, established the phosphoric acid iron button batteries as the main direction of development of new energy vehicle technology line

## **2. SWTO Analysis on BYD**

SWOT analysis was first proposed by management professors at the University of San Francisco in the early 1980s in the United States. It is an accurate and objective method for analyzing the actual situation of enterprises. The SWOT analysis method combines the Opportunities, Weakness, Strength and Threat formed by the internal and external environment in which the enterprise is located, and is specifically used for market positioning, strategic analysis and measures formulation. SWOT analysis method in the use of more intuitive, convenient and easy to operate. Even in the absence of accurate and detailed data, it is possible to infer more convincing conclusions.



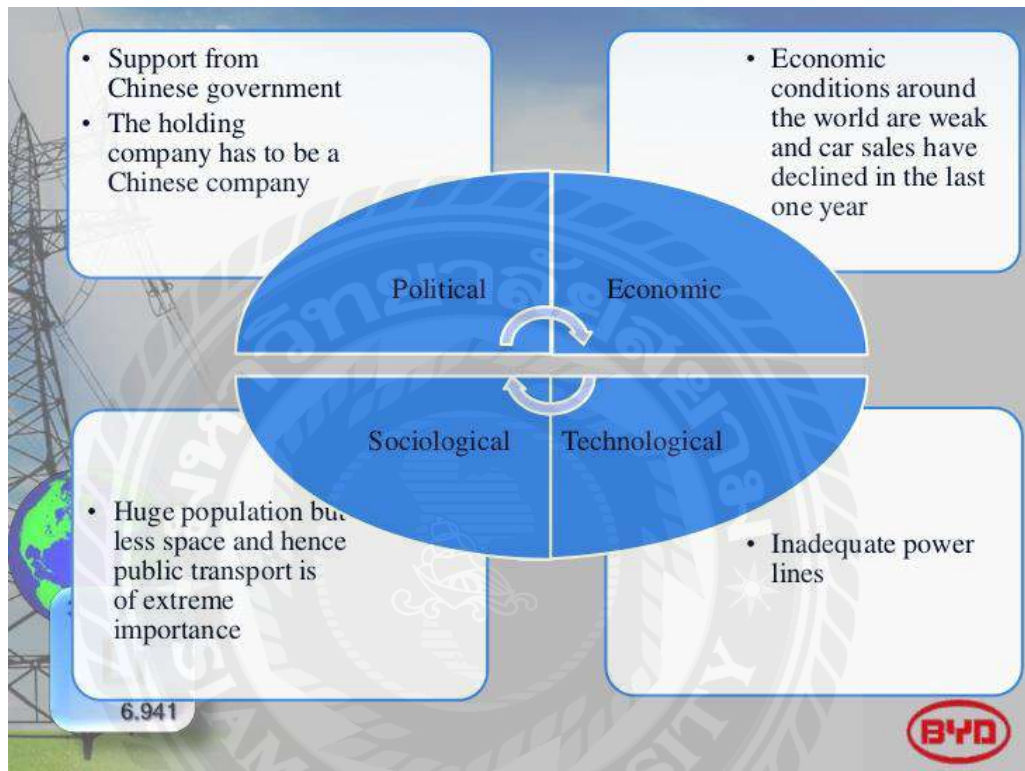


### Conclusion of SWOT

BYD new energy electric vehicles to enter the Chinese market, the competitive advantage comes mainly from the internal advantages, and external factors on the one hand for the Chinese market demand for new energy vehicles and development opportunities for good policy, on the one hand for the industry competition and local protection of the threat of competition. Therefore, in my opinion, BYD should make full use of its policy advantages in the development of new energy vehicles in China from the two aspects of internal advantages and external opportunities by taking full advantage of its own advantages, including scientific research, nuclear technology, financing and overseas operating experience. Blowout needs to make up for the brand, the vehicle manufacturing process, etc., to avoid the threat of local protection and local competition in order to achieve BYD new energy vehicles to fully enter the Chinese market to seize the strategic goal of new energy vehicles share.

### 3. PEST Analysis on BYD

This method is commonly used in the external macro environment analysis. The macro environment is also known as the general environment, including Political, Economic, Sociological and Technological fact.



#### PEST Conclusion

1. Start early. BYD is one of the first batch of enterprises to enter the new energy industry. After so many years of development, BYD has formed a science and technology accumulation with its own advantages.

2. High technology content. BYD new energy industry involves many areas: cloud rails, pure electric cars, cars, solar cells and many of BYD's technology is leading in the world.

3. Their own accumulation of science and technology. Battery is the key to new energy vehicles, BYD first involved in the battery industry, but also because of BYD

battery quality, not only occupy most of the domestic battery market, but also in the world, there are a lot of share

#### **4. New energy vehicles classification**

According to the different energy sources and working principles, new energy vehicles can be divided into hybrid vehicles (including HEV and PHEV), pure electric vehicles (FCEV), alternative fuels (gas, bioethanol, Dimethyl ether) cars and other new energy sources (such as high-energy storage) cars and other products. According to the different forms of charging, hybrid vehicles can be divided into ordinary hybrid vehicles and plug-in hybrid vehicles.

Hybrid vehicle (HEV) do not need to charge at all, relying on the traditional power to achieve the effect of hybrid. The plug-in hybrid vehicles usually use large-capacity battery 10 Kwh or so, you can only use the battery for longer distances, the need for a separate battery charge.

## **HYBRID ELECTRIC VEHICLE**



Electric vehicles (EV) refer to new energy vehicles that rely solely on electric motors to drive and are fully powered by rechargeable vehicle power sources. The biggest difference with hybrid vehicles is that they do not use internal combustion engines, so they do not use traditional renewable energy sources such as diesel and gasoline. Pure electric vehicles rely solely on rechargeable car power supply for driving,

the vehicle's internal structure is relatively simple, and the technical difficulties mainly lies in the car battery.



G.R Grove in 1893 put forward the concept of fuel cells (FCEV). A fuel cell is a type of power plant that directly converts the chemical energy of fuel and oxidizer into electricity without any combustion. Fuel cell vehicles (FCVs) are new energy vehicles driven by motor-driven vehicles powered by on-board fuel cells.





## **Chapter 3**

### **Research Methods**

#### **3.1 Research Methodology**

##### **Research Design**

This study the author uses survey and questionnaires to find out the relationship between (1) the mature and stable level of electric vehicle technology in the China market, (2) the affordable and reasonable price of electric vehicle in the China market, (3) the understand level of the advantages and characteristics of electric vehicles in the China market and the development prospect of electric vehicles in China automotive market. In the study the independent variable would be the mature and stable of electric vehicle technology, the affordable and reasonable price of electric vehicle and understand level of the advantages and characteristics of electric vehicles. The dependent variable would be the “development prospect of electric vehicles in China automotive market”.

In this study, after the author found out the independent variable and dependent variable, the author would like to see the relationship between the independent variable, in the study we call it find out the correlation of independent variable and dependent variable. The way to verification the correlation between independent variable and dependent variable, the three hypotheses were made by author.

After propose the three hypotheses by the author, the author made a 13-question questionnaire in Chinese and in the study the questionnaire will be display in both English and Chinese, during the survey, the 13-question questionnaire only display in Chinese for all the responders. The topic is “Development Prospect of Electric Vehicles

in China Automotive Market” so all the persons that are surveyed are the Chinese people in China, that is the reason why the 13-question questionnaire only display in Chinese during the survey.

The questionnaire is send by the author through online, author use the website “<https://wj.qq.com> ”send all the questionnaire, the sample size and study location and sample method will write in detail in the following paragraph.

After collect the data from the survey author will use the computer software named “SPSS” to analysis all the data and verify the three hypotheses made earlier, and verify the correlation between the independent variable and dependent variable.

### **Research step**

The following chart shows the research step of the study:



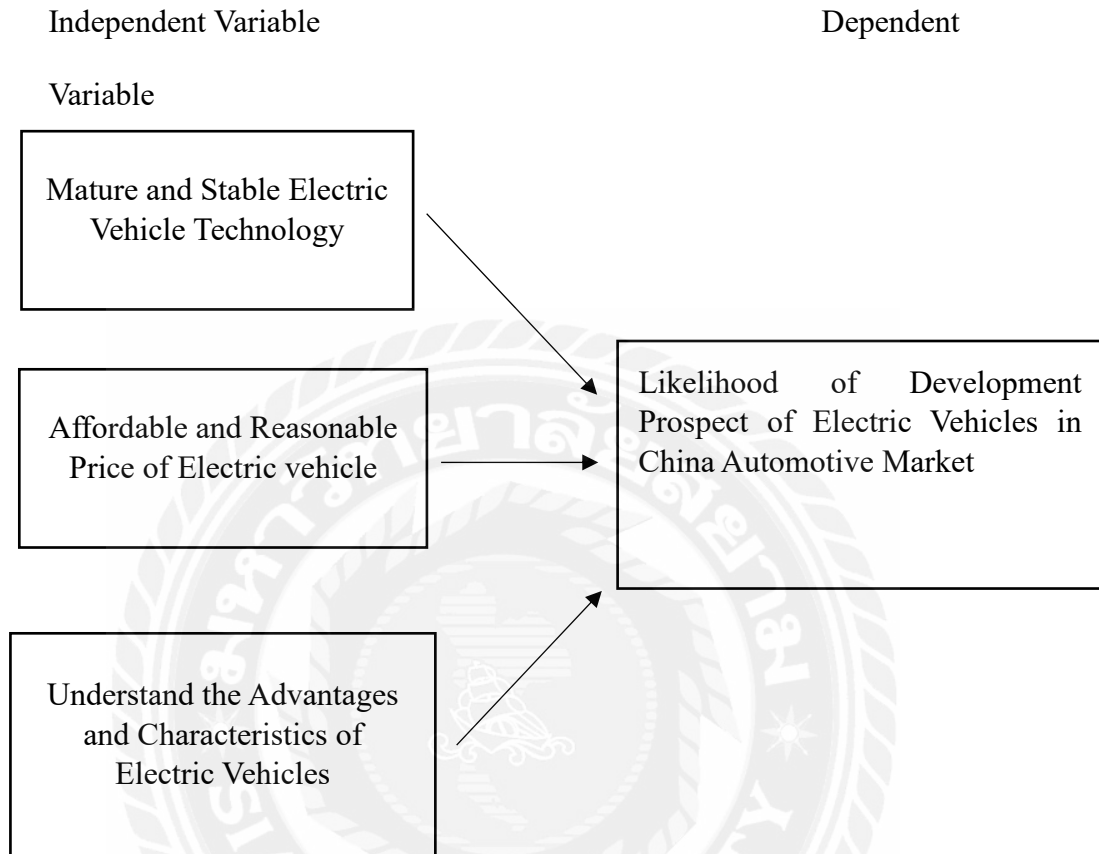
In the study, the author find out the problem about the relationship between the mature and stable level of electric vehicle technology in the China market, the affordable and reasonable price of electric vehicle in the China market, the understand level of the advantages and characteristics of electric vehicles in the China market and

the development prospect of electric vehicles in China automotive market, propose a hypothesis and draw the research framework for clearly display the independent variable and dependent variable.

The research framework also helps to make a logical hypothesis that really influence the development prospect of electric vehicles in China automotive market. After the author propose the three hypotheses, a questionnaire in China market for the survey is going to make an accurate data collection for the data analysis.

In the computer soft wear “SPSS”, author will input all the data that collated in the survey by the 13-question questionnaire and see the correlations between the two variables. In this study total will have three hypotheses because in the study the author total finds three independent variable and one dependent variable, each independent variable will have one hypothesis that for prove the hypothesis and check the correlation between two variables. In the following paragraph, each hypothesis will include two options: (1) Null hypothesis. (2) Alternative hypothesis. In statistics, the research of a study should be based on the existing theory and make the hypothesis of expected confirming the research results. We need to establish the opposite hypothesis or assumption, we call it “the null hypothesis” and the hypothesis that we expected is the “alternative hypothesis”. Use P-value approach and use the t-statistic to test the “significance level of the test”

## Research Framework



### Hypothesis

Hypothesis1: Mature and Stable Electric Vehicle Technology

Null Hypothesis: Mature and stable electric vehicle technology is un-correlated to the development prospect of electric vehicles in China automotive market.

Alternative Hypothesis: Mature and stable electric vehicle technology is correlated to the development prospect of electric vehicles in China automotive market.

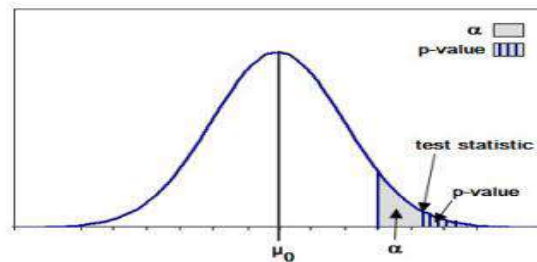
X1: Mature and stable electric vehicle technology

Y: The development prospect of electric vehicles in China automotive market

Use P-value approach and use the t-statistic to test the “significance level of the



test”



$$t = \frac{X - \mu}{\frac{s}{\sqrt{N}}}$$

Hypothesis2: Affordable and Reasonable Price of Electric vehicle

Null Hypothesis: Affordable and reasonable price of electric vehicle is uncorrelated to the development prospect of electric vehicles in China automotive market.

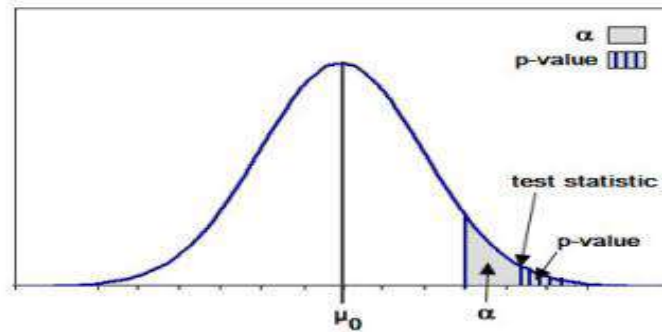
Alternative Hypothesis: Affordable and reasonable price of electric vehicle is correlated to the development prospect of electric vehicles in China automotive market.

X2: Affordable and reasonable price of electric vehicle

Y: The development prospect of electric vehicles in China automotive market

Use P-value approach and use the t-statistic to test the “significance level of the

test”



$$t = \frac{X - \mu}{\frac{S}{\sqrt{N}}}$$

Hypothesis3: Understand the Advantages and Characteristics of Electric Vehicles

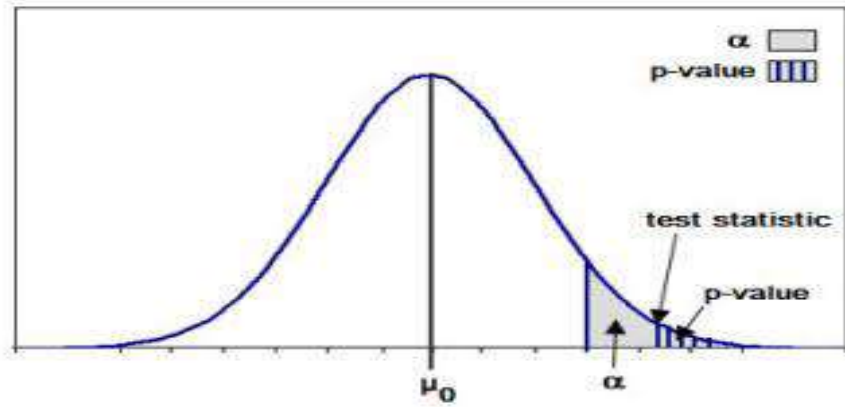
Null Hypothesis: Understand the advantages and characteristics of electric vehicles is un-correlated to the development prospect of electric vehicles in China automotive market.

Alternative Hypothesis: Understand the advantages and characteristics of electric vehicles is correlated to the development prospect of electric vehicles in China automotive market.

X3: Understand the advantages and characteristics of electric vehicles

Y: The development prospect of electric vehicles in China automotive market

Use P-value approach and use the t-statistic to test the “significance level of the test”



$$t = \frac{X - \mu}{\frac{s}{\sqrt{N}}}$$

## 1.2 Conceptual variable and the Operational Definitions

The conceptual variable and operational definitions tells readers what the concept means, and the operational definition only tells you how to measure it. A conceptual definition tells readers what is the study constructs are and tells the study how they are related to other constructs.

Conceptual variable and the Operational Definitions Table

Conceptual variable	Operational Definitions	Measurement
Mature and Stable Electric Vehicle Technology	The mature and stable level of electric vehicle technology in the China market	Ordinal

Affordable and Reasonable Price of Electric vehicle	The affordable and reasonable price of electric vehicle in the China market	Ordinal
Understand the Advantages and Characteristics of Electric Vehicles	The understand level of the advantages and characteristics of electric vehicles in the China market	Ordinal

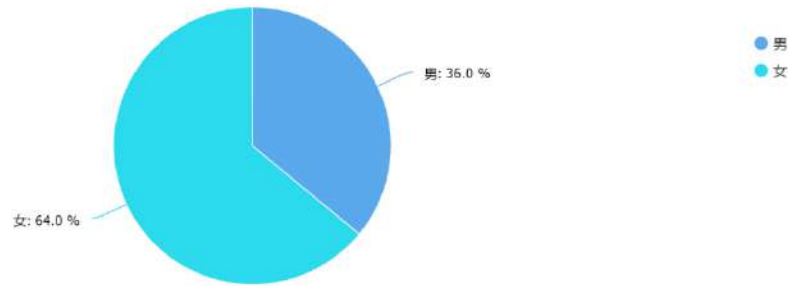
### 1.3 Survey Procedure

#### Survey location:

The location of the study is China. All responders are live in China, and the author send the questionnaire through internet and only send to all of responders who live in China, not the Chinese people who live in Thailand or other countries. All responders are from different cities of China. Base on the statics of the questionnaire website <https://wj.qq.com>, the majority of all responders are Zhejiang people and Guangdong people.

#### Survey sample size:

The target population is the Chinese people who live in China and the survey sample size is 100 responders. Total 183 questionnaires were send via <https://wj.qq.com> and the author got 100 respondents back.



In the questionnaire, total 100 responders. 64% are female and 36% are male.



5 people age below 20, 49 people in the age group “20-30”, and 23 people ages in the group “30-40”. 14 people on the age group “40-50” and 9 people age above 50.

### Survey instruments:

In the study the instruments are the 13-question questionnaire. It was created by the author and the quantities of the questionnaire was 183 and the total respondents was 100. The questionnaire was send via <https://wj.qq.com> on the date 21st Oct 2017.

### Survey hypothesis:

1. Understand the advantages and characteristics of electric vehicles is correlated to the development prospect of electric vehicles in China automotive market.

2. Affordable and reasonable price of electric vehicle is correlated to the development prospect of electric vehicles in China automotive market.

3. Mature and stable electric vehicle technology is correlated to the development prospect of electric vehicles in China automotive market.

**Data Collection and data:**

The quantities of the questionnaire were 183 and the total respondents was 100. The questionnaire was send via <https://wj.qq.com> on the date 21st Oct 2017. And collection is on the date 22nd Oct 2017.

And all the data collected from all the 100 responders are the primary Data for the study.

**Others:**

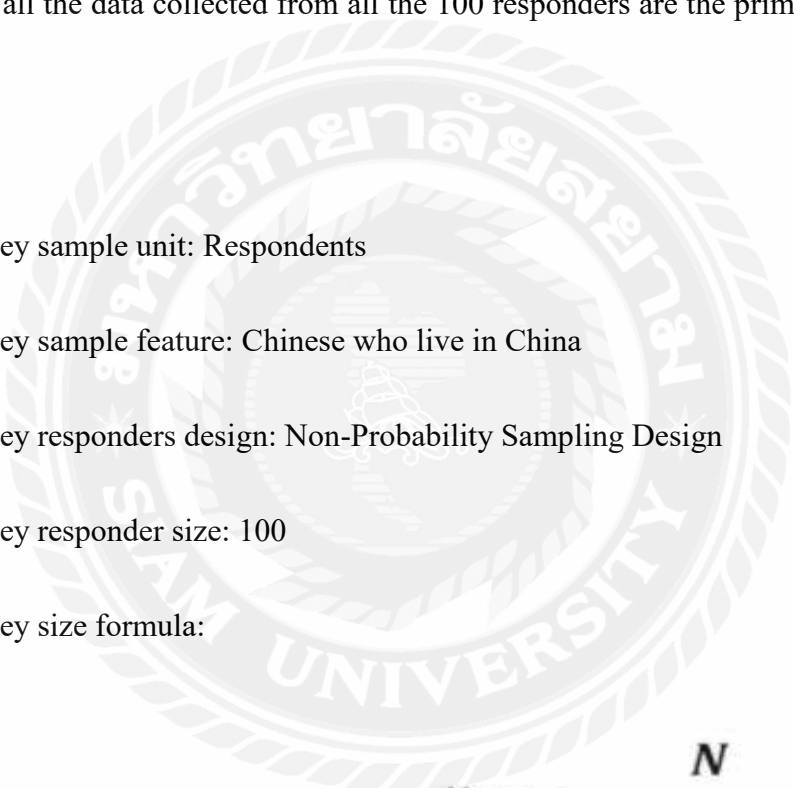
Survey sample unit: Respondents

Survey sample feature: Chinese who live in China

Survey responders design: Non-Probability Sampling Design

Survey responder size: 100

Survey size formula:


$$n = \frac{N}{1 + N * (e)^2}$$

n - the sample size

N - the population size

e - the acceptable sampling error

*\* 95% confidence level and p = 0.5 are assumed*

Sample sizes were 1%, with a confidence level of 99%, P = 0.01.

Based on two variables: population size

In the table below, confidence level (99%) and degree of change (0.01) are unchanged.

	Confidence level = 95%			Confidence level = 99%		
	Margin of error			Margin of error		
Population size	5%	2,5%	1%	5%	2,5%	1%
100	80	94	99	87	96	99
500	217	377	475	285	421	485
1.000	278	606	906	399	727	943
10.000	370	1.332	4.899	622	2.098	6.239
100.000	383	1.513	8.762	659	2.585	14.227
500.000	384	1.532	9.423	663	2.640	16.055
1.000.000	384	1.534	9.512	663	2.647	16.317

#### 1.4 Benefit of the research

This research could help all the electric vehicle company in China to understand the consumer buying needs and consumer awareness of electric vehicles. Discover the needs of consumers and understand the status quo of China's electric car in the eyes of consumers have consumer expectations of electric vehicles. On the other hand, to better understand consumer motivation for consumer electric vehicles and consumer psychology.

The three hypotheses in the article are from the perspective of ordinary consumers in the Chinese market. The problems and assumptions are very close to the display, reflecting well the consumers' opinions on electric vehicle in the Chinese market and their implications for the future of the Chinese market Potential needs of the electric vehicle.

The advantages of electric vehicles and the unique properties of electric vehicles

doomed electric vehicles to be the most important product in China's automotive market over the next decade or three decades. Car manufacturers need to take this opportunity to analyze and understand consumer demand for electric vehicles. To help consumers understand electric vehicles more deeply, as consumers better understand electric vehicles, electric vehicle manufacturers will have more potential consumers.





## CHAPTER 4

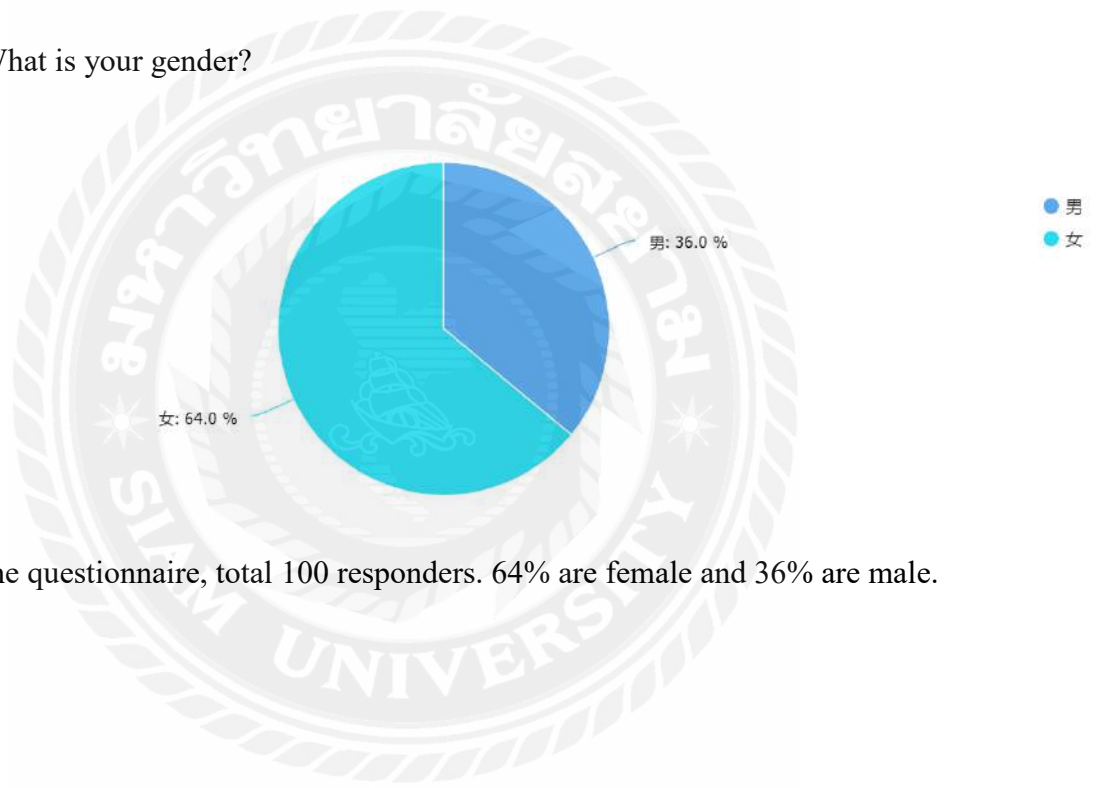
### Data Analysis

#### 4.1 Questionnaire Data Analysis

All the data collect by the author via Tencent Online questionnaire website (<https://wj.qq.com/>). Total 185 questionnaires were send and 100 responder feedbacks.

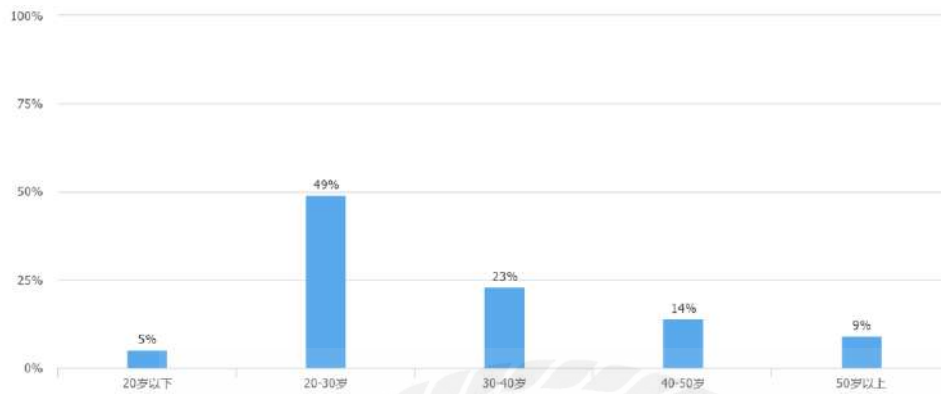
All the data was based on the 100 responders.

1. What is your gender?



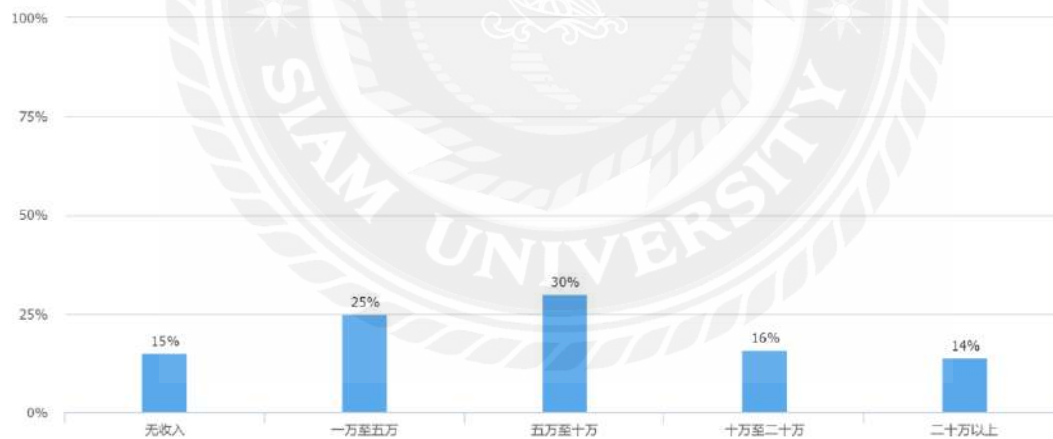
In the questionnaire, total 100 responders. 64% are female and 36% are male.

## 2. Your age?



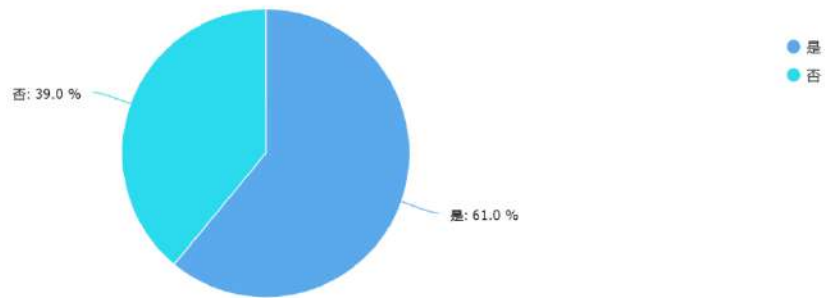
The main age group in the survey is the age group “20-30”, 49 of 100 responders are in that age group. 23 responders are in the age group “30-40”. In China, the age group 20-40 have the highest purchasing power.

## 3. What is your annual income?



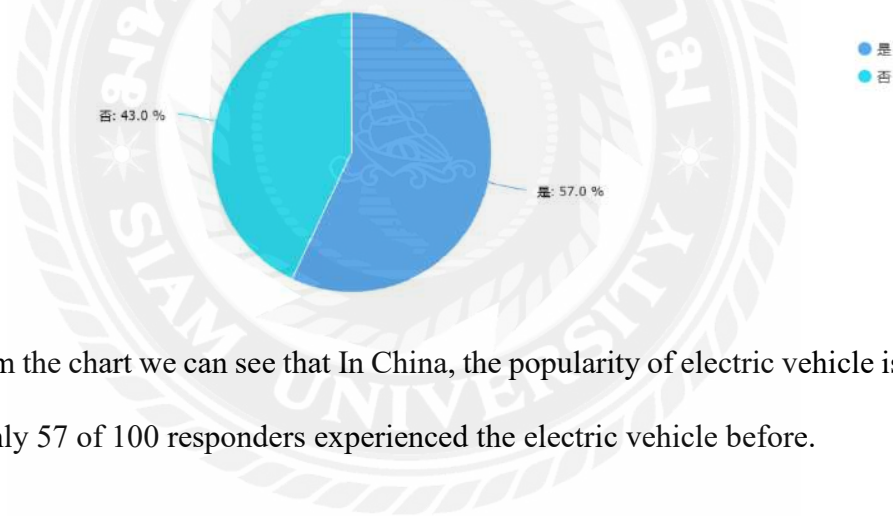
From the chart we can see the 100 responders displayed the average personal income in China. Most of people in the “50K-100K” level. 14% of responders are high income person, the annual income over 200K annually.

4. Do you drive?



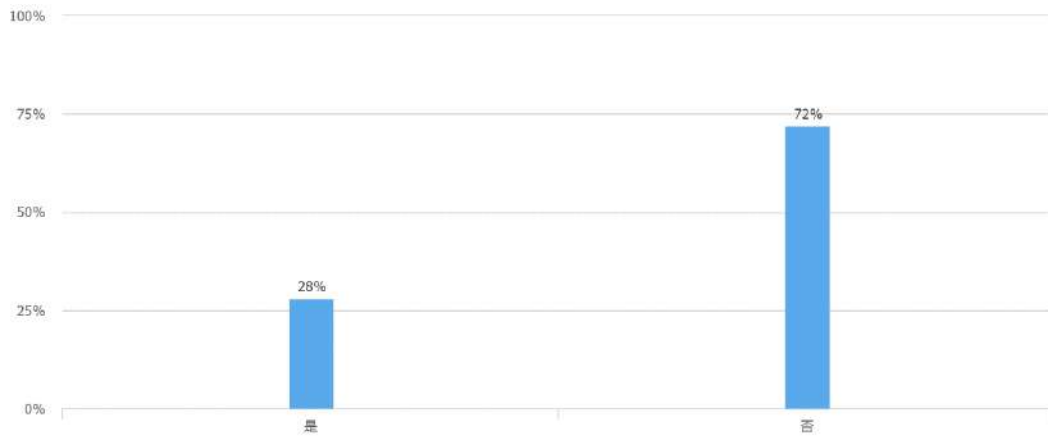
61 of 100 responders are drive car, it also displayed the author mentioned the highly demand of vehicle in Chinese market now.

5. Have you been experienced to electric vehicles? (Driving or riding)



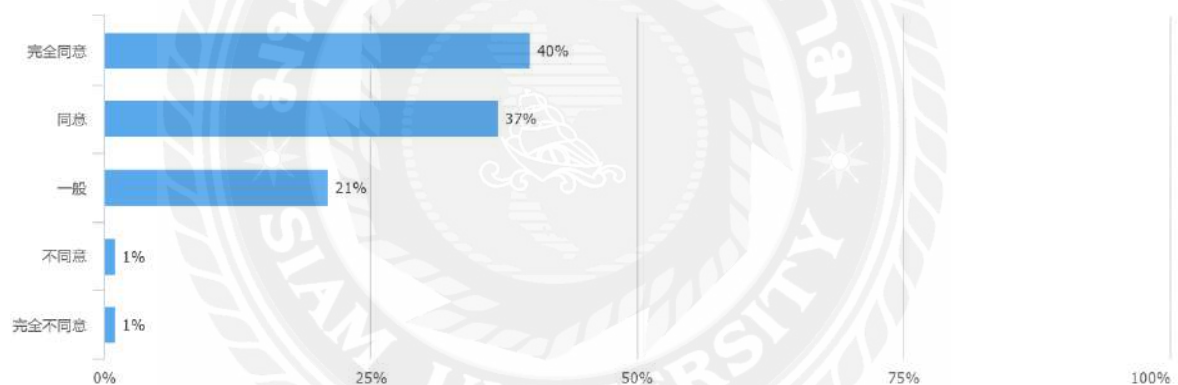
From the chart we can see that In China, the popularity of electric vehicle is still not high, only 57 of 100 responders experienced the electric vehicle before.

6. Do you think the Chinese market of electric vehicle technology is mature?



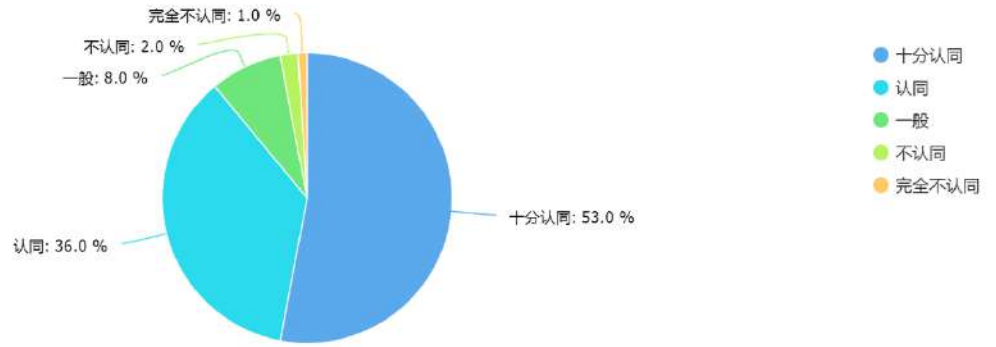
72 of 100 responders thought the electric vehicle technology is not mature in China. Other 28 responders thought the technology is mature enough.

7. Electric vehicle in China will have very good prospects for development.



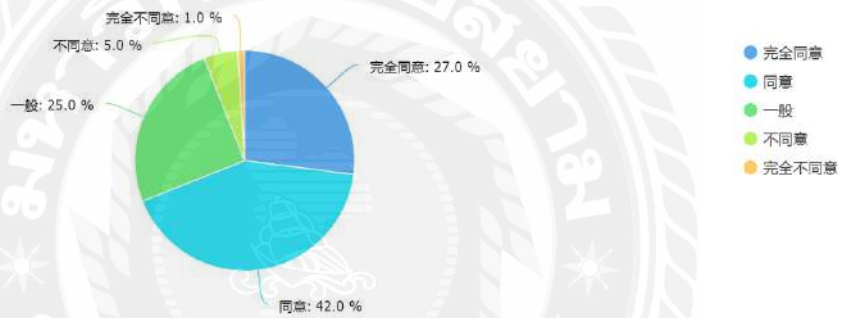
In this chart displayed that most of responders are agree that the electric vehicle will have good prospects development in China, 40 responders totally agree and 37 agree, only 1 responders totally disagree the point.

8. Mature and stable electric vehicle technology has an impact on consumer choice of electric vehicles.



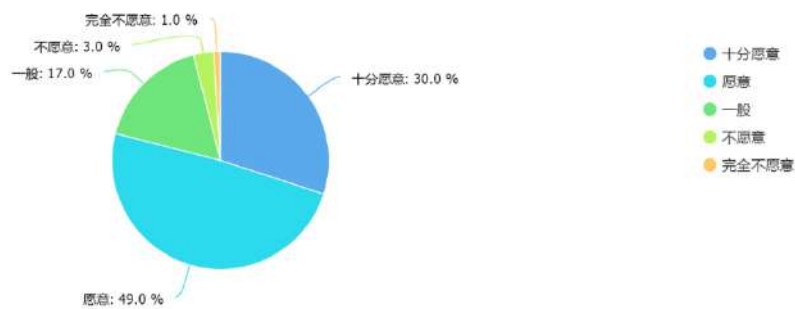
53 responders totally agree and 36 responders agree that mature and stable electric vehicle technology has an impact on consumer choice of electric vehicles.

#### 9. Price factors affect the development of electric vehicles in the Chinese market



42 responders agree and 27 responders totally agree that Price factors affect the development of electric vehicles in the Chinese market, 25 of them think the price is not very important for the development of electric vehicles.

#### 10. Would you like to know the benefits and features of electric vehicles?



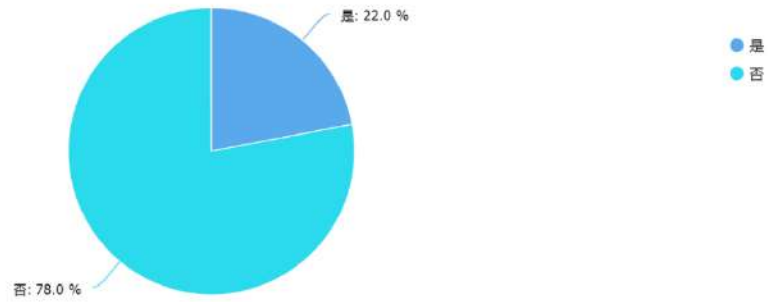
30% of responders strongly willing to know the information about electric vehicles and 49% people willing to know the benefits and features of electric vehicles.

11. If you are going to buy an electric vehicle, which of the following options do you value?



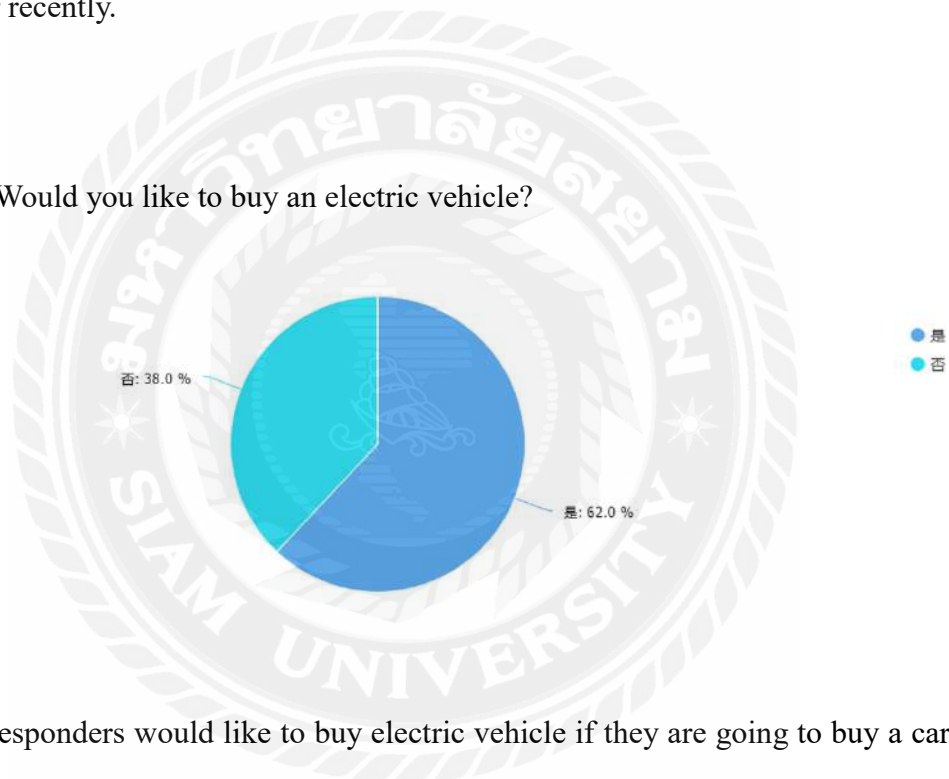
From this chart we can see the most important factor that affect consumer buying behaviors for an electric vehicle is the factor “Mature and reliable electric vehicle technology”, and 16 people think the features and benefits of electric vehicles is the factor that could affect the buying behaviors, 6 of responders think price is the factor that could affect the buying behaviors.

12. Do you have a car purchase plan recently?



22 responders have a plan to buy a car recently, and 78 responders have no plan to buy a car recently.

13. Would you like to buy an electric vehicle?



62 responders would like to buy electric vehicle if they are going to buy a car, and 38 responders still prefer to buy the normal car.

#### 4.2 SPSS Analysis

Author use SPSS 22.0 to analysis the data.

The following chat shows the variable and data input by author.

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1 Gender	Numeric	14	0		(1. male)	None	14	Right	Nominal	Input
2 AGE	Numeric	14	0		(1. below20)	None	14	Right	Nominal	Input
3 INCOME	Numeric	17	0		(1. no)	None	17	Right	Nominal	Input
4 DRIVE	Numeric	20	0		(1. yes)	None	20	Right	Nominal	Input
5 EVEPPER	Numeric	50	0		(1. YES)	None	50	Right	Nominal	Input
6 TECMATURE	Numeric	65	0		(1. YES)	None	65	Right	Nominal	Input
7 EYPD	Numeric	50	0		(1. TA)	None	50	Right	Nominal	Input
8 maturetecaffectBB	Numeric	80	0		(1. ta)	None	80	Right	Nominal	Input
9 priceaffextBB	Numeric	58	0		(1. ta)	None	58	Right	Nominal	Input
10 KNOWLAGEEV	Numeric	64	0		(1. ta)	None	64	Right	Nominal	Input
11 keyatractpoint	Numeric	72	0		(1. mature a	None	72	Right	Nominal	Input
12 buyEV	Numeric	36	0		(1. yes)	None	36	Right	Nominal	Input
13 buyEV	Numeric	36	0		(1. yes)	None	36	Right	Nominal	Input

1	Gender	AGE	INCOME	DRIVE	EVEPPER	TECMATURE	priceaffextBB	KNOWLAGEEV	keyatractpoint	buyEV
1	1	2	2	2	1	1	2	2	2	2
2	2	2	3	2	2	2	2	2	2	2
3	1	2	5	1	1	1	2	2	2	2
4	2	4	3	1	2	1	2	2	2	2
5	2	2	2	1	2	2	2	2	2	2
6	2	2	3	2	1	1	2	2	2	2
7	2	4	3	1	2	1	2	2	2	2
8	1	3	3	1	1	1	2	2	2	2
9	1	4	4	1	1	1	2	2	2	2
10	1	2	3	1	1	1	2	2	2	2
11	1	2	2	1	2	2	2	2	2	2
12	2	4	1	1	1	1	2	2	2	2
13	2	2	3	2	1	1	2	2	2	2
14	1	2	4	1	2	2	2	2	2	2
15	1	2	3	1	1	1	2	2	2	2
16	2	3	2	1	2	2	2	2	2	2
17	2	2	4	2	2	2	2	2	2	2
18	2	2	1	1	2	2	2	2	2	2
19	1	2	3	1	2	1	2	2	2	2
20	2	2	3	1	1	1	2	2	2	2
21	2	3	3	1	1	1	2	2	2	2
22	2	3	3	1	2	2	2	2	2	2
23	2	1	1	2	2	2	2	2	2	2
24	1	3	4	1	1	1	2	2	2	2
25	2	3	3	1	1	1	2	2	2	2
26	1	2	3	1	1	1	2	2	2	2
27	1	3	4	1	1	1	2	2	2	2
28	1	4	4	1	1	1	2	2	2	2

➔ **Correlations**

**Descriptive Statistics**

	Mean	Std. Deviation	N
KNOWLAGEEV	1.96	.828	100
priceaffextBB	2.11	.898	100
maturetecaffectBB	1.62	.801	100
buyEV	1.38	.488	100

For the correlation test the goal is reject the null hypothesis and prove that the alternative hypothesis is right.

H0 same as Null Hypothesis, the RHO should equal to zero

HA same as Alternative Hypothesis, the RHO should smaller or greater than



zero.

$$\alpha = 0.01$$

Correlation is significant at the 0.01 lever so the confidence level equal to 99%.

Decision rule: reject H0 when rho is higher or lower than 0

Decision: Reject H0

**Correlations**

		KNOWLAGEEV	priceaffextBB	maturetecaffectBB	buyEV
KNOWLAGEEV	Pearson Correlation	1	.291**	.556**	.463**
	Sig. (2-tailed)		.003	.000	.000
	Sum of Squares and Cross-products	67.840	21.440	36.480	18.520
	Covariance	.685	.217	.368	.187
	N	100	100	100	100
priceaffextBB	Pearson Correlation	.291**	1	.340**	.296**
	Sig. (2-tailed)	.003		.001	.003
	Sum of Squares and Cross-products	21.440	79.790	24.180	12.820
	Covariance	.217	.806	.244	.129
	N	100	100	100	100
maturetecaffectBB	Pearson Correlation	.556**	.340**	1	.321**
	Sig. (2-tailed)	.000	.001		.001
	Sum of Squares and Cross-products	36.480	24.180	63.560	12.440
	Covariance	.368	.244	.642	.126
	N	100	100	100	100
buyEV	Pearson Correlation	.463**	.296**	.321**	1
	Sig. (2-tailed)	.000	.003	.001	
	Sum of Squares and Cross-products	18.520	12.820	12.440	23.560
	Covariance	.187	.129	.126	.238
	N	100	100	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Null Hypothesis: Mature and stable electric vehicle technology is un-correlated to the development prospect of electric vehicles in China automotive market.

Null Hypothesis: Affordable and reasonable price of electric vehicle is un-

correlated to the development prospect of electric vehicles in China automotive market.

Null Hypothesis: Understand the advantages and characteristics of electric vehicles is un-correlated to the development prospect of electric vehicles in China automotive market.

Alternative Hypothesis: Mature and stable electric vehicle technology is correlated to the development prospect of electric vehicles in China automotive market.

Result:

The null hypothesis was rejected as the correlation coefficient between Mature and stable electric vehicle technology and the development prospect of electric vehicles in China automotive market is non-zero and found to be statistically significant, as the Sig is lower than the alpha value. The correlation coefficient between the two is 0.321 which is a positive correlation.

The null hypothesis was rejected as the correlation coefficient between Affordable and reasonable price of electric vehicle and the development prospect of electric vehicles in China automotive market is non-zero and found to be statistically significant, as the Sig is lower than the alpha value. The correlation coefficient between the two is 0.291 which is a positive correlation.

The null hypothesis was rejected as the correlation coefficient between Understand the advantages and characteristics of electric vehicles and the development prospect of electric vehicles in China automotive market is non-zero and found to be statistically significant, as the Sig is lower than the alpha value. The correlation coefficient between the two is 0.463 which is a positive correlation.

## CHAPTER 5

### Conclusion

The prospects for the development of the electric vehicle industry are extremely promising. Relevant technologies and market conditions have been initially available. However, due to the fact that the industry is still in its infancy, it still faces many problems such as immature technologies, inadequate policies and unacceptable markets. How to recognize the development status quo, sort out the law of development, formulate a development strategy in line with the actual situation, and gradually move toward a fast lane for sound development are all issues that must be confronted and solved by each enterprises and institutions involved. I hope through this study, can play a certain role in enlightenment and reference for the development of the industry, and promote the development of pure electric vehicle industry in China in the forefront of the global automotive industry.

Under the framework of the development of China's pure electric vehicle industry and the overall research and development layout, we will start with improving national policies and regulations, innovating new and high technologies, and accelerating the construction of supporting infrastructures. We will vigorously strengthen product research and development and technological innovations and will produce a large number of Market value and production of proprietary intellectual property, to seize the automobile market competition system point. Accelerating the transformation of traditional automobiles into pure electric vehicles, developing pure electric vehicles as the basic strategy for realizing the transformation and upgrading of the automobile industry in our country, and coping with the sunshine industry in which pure electric vehicles are prosperous, as the main mode of crisis, energy shortage,

environmental pollution and greenhouse effect, Looking for new opportunities and breakthroughs in economic development, to achieve a healthy, orderly and sustainable development of China's electric vehicle industry.

From the perspective of national legislation, it is necessary to speed up the formulation of key indicators such as the technical standards for the construction of charging machines, charging stations, power supply systems and power grids, the quantity and overall planning of power grids. In the standard-setting, scientific research institutes, universities and colleges and automobile manufacturers should be given full play to encourage them to participate in the formulation of standards, solicit opinions and suggestions extensively, formulate national standards for charging facilities that are realistic and practicable, Facilities to provide guidance and basis.

China should recognize the general situation of the international automobile manufacturing, grasps the pulse of the development of the automobile and takes advantage of the good opportunity of the development of the pure electric vehicle to comprehensively promote the development of the pure electric automobile industry in our country, to realize the transformation and upgrading of the automobile manufacturing industry in our country and to build a strong market competition For the electric vehicle manufacturing system to promote China's transformation into a world leading manufacturing country.

The mature and stable level of electric vehicle technology in the China market is the most important for the development prospect of electric vehicles in China automotive market. Based on the enhancement of independent research and development capabilities, pure electric vehicle manufacturers in China can choose joint ventures in risky, investment-intensive and complex systems to focus their research on

motors, batteries and telex systems key areas and nuclear technology are also, phase continuously improve the technical content of China's pure electric vehicles and market competitiveness. The foundation of China's automobile manufacturing industry is relatively weak, and there is still a long way to go to the advanced countries in the world.

China's pure electric vehicle industry is in its infancy, any one car manufacturers are unable to independently complete product development, design, production and sales, after sales and other activities, just in their own areas of good research and development there are certain advantages, which requires resources, technology Rational allocation, building industry-coordinated competing mechanism. Manufacturers of pure EVs in China can break the inherent boundaries between manufacturers by means of enterprise technology alliances, complement each other's strengths, reduce the risk of failure, reduce the cost pressure and improve the optimal allocation and innovation of resources in the entire industry.

Chinese pure electric vehicle manufacturing enterprises can speed up the research and development and technical tackling of key technologies through technical cooperation with internationally renowned enterprises, which will be more effective than simply relying on the introduction of technologies, and will also benefit the research and development capability of domestic enterprises. But also conducive to gain the upper hand in the market competition. China should take the government as its guide and all enterprises should freely combine principles to gradually change the inherent conceptions of domestic automobile manufacturers. Considering the long-term industrial development, correctly view the relationship between benign competition and friendly cooperation and eradicate the differences between the original domestic manufacturers the mode of inefficient development, coordination and cooperation, jointly carry out technology research and development, building an independent

technology.

Electric vehicle industry is a new industry, sunrise industry, which represents the future of the automotive industry is the upstream and downstream of China's automobile industry. The understand level of the advantages and characteristics of electric vehicles in the China market affect the development prospect of electric vehicles in China automotive market. The profound hope and opportunity, our government, enterprises, research institutes and tertiary institutions should be pure electric In this context, by analyzing the status quo, environment and opportunities for the development of pure electric vehicles in our country, this paper proposes that the development of China's pure electric vehicle industry This is also in line with the background of the times and the needs of enterprise development. It is not difficult to see from the analysis of the article that it is of crucial importance to formulate a development strategy for the pure electric vehicle industry which is in line with the current situation of our country and the industrial base. To develop a good pure electric vehicle industry must be steady, step by step, carried out in stages. We should boldly try to promote the region and the whole country and set the goal more accurately and practically in the related technical and personnel training.

For the understand level of the advantages and characteristics of electric vehicles in the China market and the development prospect of electric vehicles in China automotive market. Chinese EV brands should continue to enrich and perfect the marketing mode, learn the marketing experience of advanced foreign enterprises and cultivate their own brand customer markets according to the actual situation of their consumer markets so as to enhance consumers' trust and loyalty to the brand.

Popularize and promote the advantages of electric vehicles as well as various excellent features of electric vehicles. At the same time to increase publicity efforts in the market, government departments should also strengthen the promotion of electric vehicles. Allow consumers to have a rooted image of electric vehicles.

In the current poor consumer awareness of the situation, China's pure electric car industry should pay more attention to marketing strategies and methods. It should be strengthened on the market segments and buyers need to be fully aware of consumer opinions and suggestions, and to infiltrate the product design, development, manufacturing and sales of all aspects with different characteristics of products and personalized service to meet the needs of different consumer groups.

### **Recommendation**

First, for the consumers, what the government should do is to establish a reasonable driving rules and regulations for electric vehicles, set up a repair center for electric vehicles, set up a dedicated parking spot for electric vehicles in the parking lot and equipped with a charging socket, so that users do not have to worry about. Through the various subsidies and discounts for consumers of electric vehicles, the effective demand of consumers is formed, and a certain discount is given to the purchase of electric vehicles.

Second, relevant enterprises engaged in R & D and technology research of electric vehicles shall be given preferential tax treatment such as income tax and business tax, and may be given VAT deduction for their R & D expenses. Increase the support for R & D of electric vehicles. In the early stage of electric vehicle industrialization promotion, it is necessary for the government to set up a special fund for R & D and industrialization promotion of electric vehicles, and devoted itself to the

continuous investment in the development and research of electric vehicles. Related research institutes and enterprises of scientific research and innovation.

Tired, increase propaganda efforts to raise public awareness. We should vigorously promote and promote the consumption of electric vehicles and actively promote the popularization and promotion of electric vehicles to form a social environment conducive to the development of electric vehicles.





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## Appendix

1. What is your gender?

1. Male
2. Female

2. Your age?

1. Under 20
2. 20-30
3. 31-40
4. 41-50
5. 51 or more

3. What is your annual income?

1. No income
2. Ten thousand to fifty thousand
3. 50,000 to 100,000
4. One hundred thousand to two hundred thousand
5. Two hundred thousand or more

4. Do you drive?

1. Yes
2. No

5. Have you been experienced to electric vehicles? (Driving or riding)

1. Yes
2. No

6. Do you think the Chinese market of electric vehicle technology is mature?

1. Yes

2. No

7. Electric vehicle in China will have very good prospects for development.

1. Totally agree

2. Agree

3. General

4. Disagree

5. Absolutely disagree

8. Mature and stable electric vehicle technology has an impact on consumer choice of electric vehicles.

1. Totally agree

2. Agree

3. General

4. Disagree

5. Absolutely disagree

9. Price factors affect the development of electric vehicles in the Chinese market

1. Totally agree

2. Agree

3. General

4. Disagree

5. Absolutely disagree

10. Would you like to know the benefits and features of electric vehicles?

1. Very willing
2. Willing
3. General
4. Not willing
5. Totally unwilling

11. If you are going to buy an electric vehicle, which of the following options do you value?

1. Mature and reliable electric vehicle technology
2. Price
3. Features and Benefits of Electric Vehicles (Fast Acceleration, Low

Noise)

12. Do you have a car purchase plan recently?

1. Yes
2. No

13. Would you like to buy an electric vehicle?

1. Yes
2. No

1. 您的性别 [单选题]

1. 男
2. 女

2. 您的年龄 [单选题]

1. 20 岁以下
2. 20-30 岁
3. 30-40 岁
4. 40-50 岁
5. 50 岁以上

3. 您的年收入 [单选题]

1. 无收入
2. 一万至五万
3. 五万至十万
4. 十万至二十万
5. 二十万以上

4. 您是否开车? [单选题]

1. 是
2. 否

5. 您是否接触过电动汽车? (驾驶或乘坐) [单选题]

1. 是
2. 否





6. 您认为现在中国市场的电动汽车技术是否成熟? [单选题]

1. 是
2. 否

7. 电动汽车在中国会有很好的发展前景 [单选题]

1. 完全同意
2. 同意
3. 一般
4. 不同意
5. 完全不同意

8. 成熟和稳定的电动汽车技术对于消费者选购电动汽车有影响 [单选题]

1. 十分认同
2. 认同
3. 一般
4. 不认同
5. 完全不认同

9. 价格因素影响电动汽车在中国市场的发展 [单选题]

1. 完全同意
2. 同意
3. 一般
4. 不同意
5. 完全不同意



10. 您愿意了解电动汽车的优势和特性吗? [单选题]

1. 十分愿意
2. 愿意
3. 一般
4. 不愿意
5. 完全不愿意

11. 如果您将购买电动汽车, 下列选项您更看重哪一项? [单选题]

1. 成熟可靠的电动汽车技术
2. 价格
3. 电动汽车的特性和优势 (加速快, 噪音小)

12. 近期您是否有购车计划? [单选题]

1. 是
2. 否

13. 您愿意购买电动汽车吗? [单选题]

1. 是
2. 否

