Risk Dispersion and Sharing of Risk Investment for the Development of New Energy Automotive Industry

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Abstract. The new energy automobile is of great significance for global energy security and environmental protection. It has great business potential, but at the same time, great risk is also hidden in it. The development of new energy automobile relies on a series of technical breakthroughs and the construction of complete industrial chain; what's more, huge capital investment is demanded in its growth stage. This paper highlights and analyzes the risks and opportunities of new energy automotive industry; discusses the role of risk investment in the development of the industry and points out that risk investment will be the main form of financing for the development of new energy automobile industry.

1. Introduction

New energy automobile refers to the automobile with new technology and structure which adopts the non -conventional fuel as the power source (or uses the conventional fuel for vehicle and adopts the novel vehicle power device), integrates the power control and the advanced technology of driving so as to form advanced technical principle. As the energy efficiency of new energy automobile is high and it is also environmental friendly, it is of great strategic significance for our country and even the whole world to develop the new energy automobile in the circumstance that energy and environmental crisis is increasingly serious currently. However, it is a long process to realize the industrialization of new energy automobile, as the failure of any linkage may lead to the failure of the whole industrialization process. Because the new energy automotive technology is characterized by high investment, high return, fierce competition, long cycle and so on, its risk is self-evident.

2. Risk confronted in the process of industrialization of new energy automotive

2.1 Technology risk

The major technical risks in the process of industrialization of new energy automotive include the risk of technological competition and the risk of choice of technology.

Risk of technological competition. Currently, the new energy automobile has become the strategic opportunity for automobile enterprises to compete for the future market in the world, so countries all over the world make great effort to support the development of new energy automobile. Comparatively, less investment has been made for new energy automobile and the development is relatively slow, what is more, the technology gap between China and the developed countries in this respect may gradually increase.

The risk of choice of technology. As there is no detailed and specific development direction of new energy automobile in our country while a large amount of capital is required for the technology research for new energy automobile, vast loss will be incurred for the country and enterprises if the direction is incorrect.

2.2 Risk of capital

For new energy automobile, capital, talent and fuel are the important resource for the development of industrialization, as we as the fundamental guarantee for its development. There is also a huge risk in terms of the availability of the above three aspects.

Firstly, it is about capital. In terms of technology research, development and the promotion, a large amount of capital investment is required for the new energy automobile enterprise. At present, most of the capital invested for new energy automobile in China comes from the state and enterprises. However, because currently, the strategy implemented in China is to encourage the development of a variety of new energy automobile, which leads to the dispersion of government's investment while enterprises need to have some achievements in order to get the support of the government, therefore, most of the new energy automobile enterprises can only rely on their own financing abilities to obtain capital. However, as most of the new energy automobile enterprises lack of mortgage assets with high investment risk, it is difficult to be favored by banks and other financial institutions.

In terms of the talents, the professional talents of new energy automotive are mainly involved in the manufacturing and applications market of new energy automotive, inspection and maintenance of automotive, inspection and maintenance of charging piles, auto parts, logistics and so on. Currently, there is a huge talent gap in this area. For example, in terms of maintenance, there is no school, which has the major-maintenance of new energy automobile so far. The maintenance technology application course for applicable talent training of new energy automotive is still in a blank state. China has not yet established a specialized talent training system in new energy automotive field, so there is a risk of shortage of talents.

Finally, in terms of fuel. The current fuel (energy) of the new energy automotive are mainly oil, natural gas, animal, vegetable and animal oil, crops, coal, hydrogen, electricity, solar energy, etc. As the power source of new energy automotive, the cost and availability of fuel will all affect the development of new energy automotive industry.

2.3 Market risk

Market competition risk. The giants of automotive enterprises in developed countries have a large number of capital for the R&D of new energy automotive technology, at the same time, they also have created a lot of well-known brands. The brands of new energy automotive independently researched and developed in China will certainly confront the strong competition from foreign automobile enterprises.

Cost risk. The new energy automotive has great social and economic benefits, but for consumers, the price is their primary concern. Currently, the price of new energy automotive is generally higher than that of the ordinary automotive of the same grade. At the same time, there are fewer charging pile, the supporting facilities of filling stations related to new energy automotive, so they must be constructed by a large quantity and the related construction costs will also be included in the cost of new energy automotive.

Perception risk of consumers. For the consumers, the new energy automotive is a new product and consumers do not have enough understanding of it and they will doubt its security, convenience and so on. Since consumers tend to avoid losses rather than maximize their benefits in the purchasing process, they will be more inclined to choose the traditional fuel automotive.

2.4 Risk of policies

Although our country is vigorously supporting the development of new energy automotive industry at present, the future is rapidly changing and we are not able to determine whether the country will ignore or even abandon the new energy automotive because of national conditions and so on.

Meanwhile, although China has certain subsidies for the purchase of new energy automotive, we are still lack of the subsequent supporting policies for new energy automotive compared with developed countries.

3. Risk dispersion and sharing of risk investment for the new energy automotive industry

Risk investment refers to the term that the professional personnel provide equity financing and participate in corporate governance for companies within the industry which grows rapidly and rises in recent years with great potential and risk. Therefore, it has the characteristics and functions of risk diversification. The risk investment personnel can not only provide its own funds to the enterprise for its development in the aspect with large risk, but also take the leadership in the enterprise for better development by adopting its own advantages such as management service and technology service, as well as experience, knowledge, information, interpersonal relationships and other value-added services. Additionally, the strict screening mechanism for risk investment project, portfolio investment, the tool selection of compound investment and so on also disperse the risk of entrepreneur. At the same time, it also plays a role to disperse the investment risk of risk investor so that a diversified risk sharing mechanism is establish in this way.

3.1 The mutual promotion between risk investment and new energy automotive industry

Risk investment and the development of new energy automotive are mutually influenced and promoted, especially in the circumstance that the characteristics of high risk, high investment, high yield of new energy automotive are consistent with the characteristics of risk investment in pursuit of high risk and high yield. What is more, in the production cycle of new energy automotive, a lot of capital investment is required and the investment process should be carried out continuously. In recent years, the robust development of new energy automotive is promoted by risk investment to a large extent. At the same time, the economic effects brought by the development of new energy automotive have also contributed to the risk investment. It can be said that they complement with each other. The two-way promotion effect is manifested in: risk investment will provide a huge amount of capital, information resources, advanced management for new energy automotive. In the aspects of capital and technology, it has promoted the development of new energy automotive; At the same time, the new energy automotive will bring high rate of return for the risk investors so as to form a overall virtuous cycle.

3.1.1 Risk investment can provide capital for the development of new energy automotive industry

As the new energy automotive makes high investment with high risk and the industry is a new type, there is no pre-recording for reference and guarantee, a variety of factors make the enterprise more difficult in the preliminary stage. The traditional commercial financing, such as bank loans, corporate commercial credit will not be available to the emerging new energy automobile while risk investment can effectively make up for it.

3.1.2 Value-added services for new energy automotive enterprises provided by risk investment

As the purpose of risk investment is to make the capital in late stage withdraw as soon as possible, so it is not permanent share-holding. So the better, the smoother and the faster the development of the enterprise is, the higher the rate of return on risk investment will be. The technical personnel specialized in research on new energy automotive may not necessarily be capable for company management, therefore, the risk investors can use their information, interpersonal relationship, the network of relationship and experience to help the new energy automotive enterprises to obtain effective suggestions in the preliminary stage of development so as to lay a good foundation for future development. First of all, there are internal staff for risk investment in the board of directors who have sensitive business judgment in terms of the business development strategy and other major issues and be familiar with the management of the business process; secondly, they are able to monitor the financial situation of enterprises and give opinions in terms of finance, as well as introduce new investors and partners.

3.2 Risk avoidance and dispersion

Risk investment can establish the risk investment found by the form of limited partnership, which makes the interests of risk investors, entrepreneurs, social investors be correlated and jointly bear the risk so as to make the high risk confronted by the enterprise socialized.

Except for the socialized methods, the capital injection in stage, portfolio investment, requirements of control right and contract of risk investment have also controlled the risk of risk investment. Through multiple rounds of investment, the enterprise can only achieve the goal of current period in the capital obtained in the current period, which is conductive to control risks. In addition, the scientific investment combination, the reasonable combination between different investment subjects at different stages in different projects also makes the risk dispersed and reduced.

4. Conclusion

In summary, the development of new energy automotive industry will enable the automotive industry to get rid of the limits of fossil fuels and it is also of great strategic significance to tackle energy crisis and improve the environment. It is one of the hot spots for technology development and investment globally. The characteristics of new energy automotive industry-high investment, high risk, high rate of return are in line with the risk investment strategy, so it should be major financing way. It is believed that with more and more capital being invested, the pace of industrialization will be further accelerated. In the near future, the new energy automobile will gradually occupy the dominant position in the market and ultimately replace the traditional automotive.

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