Innovation System Framework of SME and Innovation Case Study

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Abstract   SMEs (Small and Medium Enterprise) have become the importantly compositive part of Chinese Nation Economy. And management and innovation of SME have become one of the key problems of the process of growing up and development of SME. In this paper, a system framework of SME innovation system is introduced, and the system framework includes core layer, expression layer, enabling layer and infrastructure layer. The core layer is the basic ideal and aim of innovation, the expression layer is the expression format, the enabling layer is the method and tool of realizing innovation, the infrastructure layer is the sustentation of realizing innovation. And then the detailed meaning of different layer is expatiated. Based on this, an enterprise innovation case is discussed.

Key words   Innovation Theory, Management Innovation, System Framework, SME (Small and Medium Enterprise)

1 Introduction

Innovation is resources of modern enterprise and economy energy, and motive power of economy development, productivity increase and improvement of people’s standard of living. The government of developed country looks innovation as the national strategy and in succession takes measures to prompt innovation behaviors. The main international organizations, such as World Bank, WTO, OECD, IMF, UNIDO etc, rank cultivating innovation and enterpriser spirit as the core of policy. The government of P. R. China also presents a plan to build an innovative nation. There has creative capability or not and can carry through innovation or not, that all become the crucial factor of affecting economy development, science and technology progress, and enterprise competition. In this paper, a innovation theory framework is built, and then taking Zhengzhou NISSAN as an example, the general disciplines of its succeed innovation are explored by analyzing its succeed process. This can provide guidance to sustaining innovation and development of Zhengzhou NISSAN and other enterprises.

2 Innovation Theory System Framework

In the system framework of enterprise innovation, it need expatiate four different aspect problems, the first is that what the basic ideal and aim of enterprise innovation is, the second is that what expression format of enterprise innovation, the third is that how to realize enterprise innovation, the forth is what the infrastructure of enterprise innovation is. If we describe the real system of realizing enterprise innovation by means of the system framework of enterprise innovation, the integrated enterprise innovation system framework will include the entirely answer of the above-mentioned four problems. Consulting the researching achievements of related innovation theory, this paper builds the innovation theory system framework that includes core layer, expression layer, enabler layer and infrastructure layer. The ideal and aim of innovation is the core of framework, the expression layer is showing the format of innovation, the enabling technology is the means, method and tools of realizing the ideal and aim of innovation, the innovation infrastructure is the sustaining network of implementing enabling technology of innovation. The figure 1 just describes the four layers relation of enterprise innovation system framework.
In the core layer of enterprise innovation system framework, the basic ideal and aim of enterprise innovation theory is described. J. A. Schumpeter, is the first scholar who systemically and perfectly describe the innovation theory. Innovation is the core concept of his economic theory. He thought, when we integrated the raw materials and power than we controlled, and produced the other product or used the different method produce the same product, that would be realized the new combination of producing method and engendered is the phenomena of owning development character. That is to say, entrepreneur implemented a new combination of producing factors and conditions that never existed; accordingly, the setting up of a new product was built.

In the second layer of enterprise innovation system framework, the innovation formats is described. Generally, the innovation formats innovation includes technology innovation, management innovation and system innovation.

In the third layer, the realizing mechanism of innovation is described. It includes idea innovation system, knowledge innovation system, knowledge diffusion system and knowledge appliance system. Ideal innovation system is the precondition of all the other innovation system. Knowledge innovation is the base and headspring of technology; technology is the fundament of enterprise development, knowledge diffusion system is to cultivate and transport talents, knowledge appliance is to impel science knowledge and technology knowledge change into practical productivity.

In the fourth layer, the infrastructure of realizing innovation is described. It mainly includes the favorable innovation mechanism and excellent innovation culture. The favorable innovation will assure the sustained innovation, and the innovation culture is to arouse innovation.

The function of enterprise innovation system framework is knowledge innovation, technology innovation, knowledge diffusion and appliance. Enterprise is the principal part of technology innovation input, output and appliance; marketing behavior is the leading station. Scientific research institution and high academy is engaged to knowledge innovation, knowledge diffusion and talent cultivation; government behavior is the leading station. Society and enterprise is the principal part of applying knowledge. The government will organize the important innovation plan and project according to the nation development aim, and accelerates the integration of produce-research, extends the innovation progeny, protects knowledge property right, and so on.

3 Enterprise Innovation Case Study

3.1 Background introduction

Established in March 1993, Zhengzhou Nissan Automobile Co., Ltd is a Sino-Japanese automobile manufacturer with the approval of the state. Zhengzhou Nissan is the important manufacture base of
Nissan in China.

Leading products of Zhengzhou Nissan are Nissan's PICKUP and its transformed car, the multifunctional car like PALADIN etc, with over 60 varieties. Since its entry into the market in 1999, nearly the same time with Nissan Company, the NISSAN D22 PICKUP has won extensive endearment from the customers with its high quality and a high faithfulness of over 85%. In the successive three years, it maintained over 50% market share in the top grade PICKUP market. In April 2004’s “Satisfaction survey on product quality” sponsored by over 60 guilds of china, NISSAN D22 PICKUP was honored with the title of “the top one with customers' satisfaction in high grade PICKUP”. The PALADIN is the Sport Utility Vehicle developed by NISSAN in 2002. Since its entry into the market in March 2003, it has successively won over many prizes like “the most fashion leading car model prize”, “the most welcomed by customers SUV prize”, “the most oil saving SUV model prize” presently, it takes up 45% SUV market share of the same grade in the same period.

3.2 Experience analysis of enterprise innovation

3.2.1 Product innovation

With more and more people’s strained life, higher work pressure and artificial products in modernization city. People’s mentality going back to reality and nature is becoming more and more intensive. With the car itself, it was only a means of ride instead of walk before, and now it is characterized with individuality and fashion with improvement of people’s consumption demand.

The PALADIN is a real sport style multifunctional vehicle developed by Zhengzhou NISSAN, meanwhile gives more attention to the demands of comfort and cross-country ability of the drivers, and runs ability of overcoming all kinds of complicated road conditions. In addition, PALADIN has two especial superiorities of low fuel consumption and fashion appearance. Paladin is a classical sport utility vehicle, which is embodied with the successful experience of NISSAN cross-country vehicle over 50 years and is a comprehensive expression of technique and investigation results of Chinese market conditions such as consumption habits and cultural characters, and comes into the international markets. The sport, comfort, cross-country ability, fashion of PALADIN is second to none. PALADIN has become a type of leisure and recreational tool for some white collar, nongovernmental business enterpriser, highly effective people, and trying fashion groups.

3.2.2 Strategy innovation

Whatever the competitive environment changes, enterprise should adjust its strategy and tactics by self-orientation. Zhengzhou NISSAN is the manufacture base of Nissan in China. So its strategy and tactics should be combine the strategy of Nissan and the car condition in China, but the more important that should be taken into account is Chinese market condition. Three characters of Chinese market are high speed increasing, not too gross, and multi-levels and multi-categories demands. These decide Zhengzhou NISSAN should take the load of satisfying multi-demand. Therefore it selects small public style vehicle. This style vehicle has bigger development space and also fits the conditions of Chinese roads. The long-term goal of Zhengzhou NISSAN is become the manufacture base of small public style vehicle; the short-medium-term goal is become the important manufacture base of Nissan in China in 3-5 years.

3.2.3 Marketing innovation

The first strategy taken by Zhengzhou NISSAN in extending the market is to unite athletic sports. PALADIN car group participated in Dakar rally for the first time. The rally is a high-level international one sponsored by Chinese vehicle manufacture for the first time, and also an international rally including Chinese race driver for the first time. The appearance of PALADIN raised the flag of Chinese vehicle manufacture, and displayed the manufacture technology of Chinese vehicle. Zhengzhou NISSAN is well-known by the fashionable market of PALADIN, and have a say in SUV of Chinese in less than one year. As soon as mentioned SUV, everybody should remember PALADIN. PALADIN as a young brand was accepted by consumer, and was a leadership vehicle style of Chinese SUV.

Culture marketing plays an important role in the success of Zhengzhou NISSAN. Zhengzhou NISSAN takes the lead in sparkplugging SUV culture. It reveals the superior performance of SUV in market and fashion, leisure, sport of vehicle consumption culture.

3.2.4 Management innovation
Zhengzhou NISSAN has not only a type of product, but also possess the ability of improving this product and coming into the market successfully that include quality controllability, cost controllability, perfect marketing and service network, scientific human resource management platform and enterprise culture.

Zhengzhou NISSAN improves the product quality, meanwhile, drums in service awareness. It held a campaign of sale service in the trade not long ago by which the skills and levels of service personnel and the service system were improved. The cooperation with Dongfeng Joint stock Co., Ltd solved the limited sale and service ability of Zhengzhou NISSAN, which supplemented the blank areas and satisfied the consumer extremely.

Zhengzhou NISSAN has concentrated attention on three things in recent two years. These are ‘reducing cost and expense by scientific management, improving the whole quality of staff by systemized cultivation and learning, strengthening the cohesiveness of staff and inspiring the morale of staff by construction of enterprise culture’. These lay a well foundation to the staff and system. Today, ‘Transcending ego, pursuing for excellence’ has been enterprise concept of Zhengzhou NISSAN. With development, Zhengzhou NISSAN try for living up to ‘the standards of Zhengzhou NISSAN are the standards of NISSAN’.

4 Conclusions

At first, a system framework of innovation theory is built, in the innovation theory system framework, we analyzes the four compositive parts, that is core layer, expression layer, enabling layer and infrastructure layer. The core layer is the basic ideal and aim of innovation, the expression layer is the expression format, the enabling layer is the method and tool of realizing innovation, the infrastructure layer is the sustentation of realizing innovation. Basing on the innovation theory system framework, an enterprise innovation case is discussed. From the case, we learned that it is very difficult to create sustained competing advantage depending on once innovation. Building perfectly innovation mechanism and ensuring sustained innovation, enterprise will be long live.

References