

Influence of Leading Enterprises' Upgrade on Yunnan's Flowers Industrial Clusters Innovation

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Abstract—As market competition intensifies, Yunnan's flowers industrial clusters are facing unprecedented difficulties in development. It's necessary to promote the innovation and upgrading of industrial clusters to solve this problem. In view of the leading enterprises' core role in clusters, its transformation and upgrading inevitably have a positive influence on industrial innovation and upgrading. Based on effects of leading enterprise on industrial clusters, this paper suggests that aforementioned effects includes three parts: transformation of clusters' development mode, promotion of innovation networks' formation and facilitation of collective innovative behaviors.

Keywords—Leading Enterprises; Transformation and Upgrading; Industrial Clusters; Innovation and Upgrading component

I. INTRODUCTION

In the context of economic globalization and information networking, upgrading of industrial clusters has been one of the hottest topics in the field of regional economy research and strategic management. It's found that innovation and upgrading of industrial clusters need to rely on development from leading enterprises [1] and utilize the motive power from its innovation and upgrading [2], and these efforts, eventually, impel industrial clusters to develop toward the innovation. Leading enterprises refer to only a few companies which have already established a larger scale of production mechanism, stood prominently in the technology, equipment, talents, market and brand [3] and stimulated the development of surrounding areas through its own growth. While as one of the characteristics of the development of times, the agricultural industry cluster has become a problem that longitudinal development of agriculture cannot be ignored. Especially since the "twelfth five-year plan", China's agricultural industry has achieved rapid development, business organization size and strength continued to improve, the trend of transformation and upgrading of leading enterprise is obvious, not only became a highlight of the agricultural economic development, but also make a positive contribution for our country's small agricultural enterprises to change their mode of development.

Foreign research mainly concentrated in industrial clusters and high-tech industry cluster, but there are few studies related to the agriculture industry, emerged as the Dutch flower industry and California wines cluster and other classic cases; Kaiser and Associates systematically researched the South African's flower industry cluster and pointed out the development and upgrading of flower industry cluster has an important role to improve the competitiveness of South African flower industry. China in this aspect is in its infancy, most studies mainly focused on the qualitative analysis of the concepts of industrial clusters and upgrade, essential attribute and types. Mainly have the following three different perspectives: First, the perspective of regional network research, which discussed the evolution theory and competitive advantage theory of industrial clusters, pointed out the body of upgrading is enterprises and the key of upgrading is the transformation of economic development [4]; Secondly, the perspective of international division of labor and globalization research, the upgrading of industrial clusters embedded in the global value chain, which emphasizes upgrading of industrial clusters is a process that localized industry cluster obtain continuous improvement ability in the global value chain [5]; Finally, the perspective of industrial upgrading, which differentiate and analyze the differences and connections between industrial cluster upgrading and industrial upgrading, pointed out the upgrading of industrial clusters not only refers to the high-class process of specific industry, but also relates to the relevant regional geography, cultural system, social environment and other issues, industrial clusters use of regional advantages, through improving the industrial network, responding to the changing of the global industrial network, embedding in the high-end links of the global value chain, in order to gain more added value [6].

With the development of industrial clusters, leading enterprises, as an important role of clusters, have gradually attached more and more attention from the academic world and government sector. However, domestic leading enterprises' problem on the weaker capacity of radiation is due to unbalance in different areas. In many areas, the special advantages and scale advantages of planting industry lack of

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driving and supporting from a powerful leading enterprise, lack of extension and development, it is difficult to form a real competitive advantage in leading industries, and more difficult to form a competitive industrial clusters. In the early development of Yunnan's flower industry, the market demand is growing rapidly, flower sales showing a high-price but best-selling situation. In recent years, Yunnan's flower industry had faced increased competition from domestic and foreign same industry. So we saw some weakness emerging in our flowers producers. In conclusion, we focused on the representative Yunnan's flowers industry and explored the effect of leading enterprises' transformation and upgrading on innovation and upgrading. This has great value in theory and practical significance both from transitional development and leading enterprises' standpoint.

II. THE INFLUENCE OF LEADING ENTERPRISES ON INDUSTRIAL CLUSTERS

Industrial clusters are spatial clusters that refer to the nested networks of relationships, which are consist by different size enterprises or organizations, and leading enterprises are the core of industrial clusters and play a key role in this specific industry [3]. As an important part of the cluster, the leading enterprise plays an extremely important role in various stages of the development of industrial cluster.

A. Diffused Effect of Leading Enterprises' Knowledge

As the leader of the industry cluster, the leading enterprise has a very rich stock of knowledge and technology, so the leading enterprise performs in the role of exporter in knowledge transfer of the industrial clusters, which means that the knowledge and technology of the leading enterprise exist a diffusion effect in the cluster. Jici Wang [7] pointed that fast distribution and transfer of knowledge support local economic development and further increase clusters competitiveness. In addition to direct diffusion through various enterprises, knowledge could diffuse indirectly between individuals, such as turnover or labor transfer.

On the early stage side, Yunnan's flowers industry mainly engaged in flower planting. Some of farmer households combined with their own characteristics and local conditions to introduce foreign expertise, reformed and innovated continuously, realized the cost reduction and yield increase, and gradually established the industry's absolute leading position. Other farmers will learn these new technologies and new methods through a variety of channels, such as daily communication, study tours and personnel employment, which promote the new technologies and new methods to disseminate and diffuse within the cluster, and promote the development of the cluster.

B. Promoting Effect of Leading Enterprises' Brand

The enterprises within an area can establish a regional reputation by external economies of scale, which needs continuously strengthen and consolidate through one or more enterprises. Therefore, it is important to build regional brand image depending on leading enterprises in the region. As the core enterprise of the industrial cluster, the leading enterprise

is the technology innovation center of the industry cluster, and it is the representative of the regional brand image, its brand influence plays a key role in the process of establishing the regional brand image of entire cluster. With the continuous expansion of the size of the cluster, as well as to enhance the brand influence of leading enterprise, and rely on external effects of economies of scale for all companies within the cluster shared, the regional brands gradually formed, and growing influence. Typical examples are Qingdao Haier and West Lake Longjing Tea domestically, French perfume, Italian fashion, Swiss watches abroad.

Due to the unique advantage of climate of Yunnan province, Yunnan's flowers have excellent quality, the brand of "Yunnan Flowers" gradually known by the nation, coupled with the government's policy support, "Yunnan Flowers" brand become a beautiful card of Yunnan province. "Yunnan brand" flower products have high consumer awareness and reputation, Yunnan's flowers are in the leading overall quality level in the similar products of China, some have reached to the international advanced level. Up to now, Yunnan is the world's major flower producer, and the largest production base for fresh cut flowers and distribution center of China, production and sales ranked first in China consecutively for ten years. Thus, through the promoting effect of leading enterprises brand, it is possible to create a good brand image of the region, form the advantages of regional brand, enhance the visibility of the cluster and expand the market.

C. External Effects of Leading Enterprises' Investment

Externality was divided into pecuniary externality and technical externality by Scitovsky [8], the former refers to the common labor market and the effectiveness of suppliers, while the latter refers to the technology spillover. Therefore, no matter what efforts the leading enterprises have done in personnel training, market development or technological innovation, will bring positive externalities to the industrial clusters. Due to the dominant position of leading enterprises in the industrial cluster, determines when the leading enterprises seek for innovation and development, and enhance their competitiveness, will bring a positive additive effect to the cluster inevitably. Leading enterprises' investments in personnel training and education, as well as knowledge exchange, will improve the overall quality of the workforce in the industrial cluster, with the transfer of labor, it will indirectly enhance the clusters' level of technology. The investments in market development, will lead to the market expansion of other businesses within the cluster, thus reducing transaction costs, and increasing market share and market competitiveness of the entire cluster.

Yunnan's Flower Industry had been facing fierce competition in the market since 2003 [9]. To get rid of the plight of development, companies need to transform and upgrade, the clusters need to innovate and upgrade, as the model enterprises of the industry, leading enterprises need to take the lead in transforming and upgrading, to drive other enterprises' development of the industry. Number of the leading enterprises of Yunnan's flower industry cluster, take the lead in changing the development mode, developing the new varieties, which is conducive to enhancing the market

competitiveness, therefore, whether it is researching enterprise or planting enterprise, will get profits from R & D investment, and the leading enterprise as the subject of R & D investment, its investment will have a positive external effects within the cluster.

D. Driving Effect of Leading Enterprises' Innovation

As the enterprises of clusters with high similarity and relevance, so long as a new product or new technology appears, it will quickly spread and permeate in the industrial clusters, so corporate innovation activities often turn into a group of business innovation activities. The leading enterprise plays an important role in the industrial cluster innovation, in direct or indirect communication and cooperation with other companies in the cluster, will promote the new technology proliferating and spreading in the cluster, but also motivate other companies' innovation activities in order to maintain its position and competitiveness. Therefore, the behavior of the leading enterprises' innovation, on one hand can reduce the risk of innovation for the small businesses, and promote the development of small businesses by providing technical support, on the other hand can increase the innovative power of other enterprises to promote innovation and upgrading of the entire cluster.

When Yunnan's flower industry is facing fierce competition, achieving transformation and upgrading by innovation is the only way. Since the flower business has high similarity and relevance, innovation behavior of leading enterprises will lead to other business innovation activities, forming clusters' innovation activities. Enterprises must be carried out in order not to be eliminated in the fierce competition, innovation and upgrading. The leading enterprise as the innovation leader of the cluster, its innovation activities will increase the motivation of other enterprises, promote innovation and development of the entire cluster.

III. INFLUENCE STUDY ON LEADING ENTERPRISES' TRANSFORMATION AND UPGRADING TO THE INNOVATION AND UPGRADING OF INDUSTRIAL CLUSTER

When Yunnan's flower industry is facing increasingly fierce competition in the market, its growth rate slowing down, the development of the cluster lacks of motivation, the whole industry is facing difficulties. If the industry wants to change this situation, the enterprises need to take innovation as a driving force to promote the transformation and upgrading of themselves, to promote innovation and upgrading of industrial cluster, to enhance the market competitiveness of the entire cluster. As the products research and development centers, technological innovation and technical training centers, as well as the leader of the cluster, the leading enterprise took the lead in the transformation and upgrading, which has an important leading significance and meaningful suggest lessons for the enterprises of the cluster in the transformation and upgrading, it can bring experience summary to other enterprises, which is extremely important for the whole industrial cluster in the innovation and upgrading. For the leading enterprise, the transformation and upgrading is the unique method to cope with the fierce market competition, to sustain their leading status, so, both from the perspective of industrial cluster and

the leading enterprise, the transformation and upgrading of the leading enterprise is very important. This paper will discuss the influence study on leading enterprises' transformation and upgrading to the innovation and upgrading of industrial cluster from three aspects.

A. Transformation in Industrial Clusters' development mode

Yunnan's Flower Industry cluster's development model mainly rely on plant and sale, all innovation activities are based on improvement of the cultivation technology, which has achieved great success in the early stages of cluster. As the market competition intensified, the drawbacks gradually appears, even hinder the development of clusters. Therefore, the innovation on new varieties becomes extremely important. As to the leading enterprises, they need to change their mode of development from the flower planting to new varieties developing in order to enhance their competitiveness. Owning independent intellectual property rights of new varieties will bring more business profits and more sustainable development. As the cluster's leaders, leading enterprises are the research and development center, innovation and technical training centers of the cluster, through diffused effect knowledge, driving effect of innovation and positive externalities of leading enterprises, it will lead to the transformation and upgrading of other companies, change their development model, so as to promote the transformation of cluster's development approach.

B. Units Innovation Network of Industrial Clusters

Enterprises could obtain complementary resources and capabilities through innovation network which could effectively configure the innovative resources of the network and improve the innovation capacity and performance [3]. Leading enterprises cannot have all the knowledge and resources needed for innovation, so it's needed to establish close cooperation with other enterprises to integrate knowledge and resources, promote the formation and development of clusters innovation network. For its specific position in the industrial cluster, leading enterprises are often at the center of the cluster innovation network. They can not only gain the knowledge and resources more efficiently and conveniently but also attract research institutions' achievement or investment from other institutions. Through cooperating with other enterprises and knowledge diffusion, leading enterprises spread new technologies and new varieties to other enterprises so that leading enterprises obtain their own interests and promote the development of cluster innovation networks.

C. Group-Led Innovation Behavior of Industrial Clusters

Yunnan's flower industry cluster is facing fierce competition from domestic and foreign manufacturers, companies within the cluster are also engaged in competition, competitive enterprises will gradually grow, and become the leader of the industry, weak competitive enterprises will be eliminated gradually and become the victim of development of the industry. Innovation in leading enterprises has an effect as stimulating. In order to avoid being eliminated in a rat race, other enterprises within the cluster could imitate to do the same to improve self-competitive capability. Therefore,

leading enterprises-led individual innovation should gradually turn into group-led innovation behavior with the addition of other enterprises. For some small companies, as limited by the lack of funds or technology, they can only select a short-period, small-risk, and less-investment imitative innovation. After completing the initial primitive accumulation, the small companies will through purchase or seek technical assistance to achieve innovation and development. With the strength enhanced, and the technology spillovers effect of the leading enterprise stimulated, the small companies realize the importance of intellectual property rights, thereby gradually emphasis on innovation, increasing research investment to improve their competitiveness. It is important to put a high value on proprietary intellectual property rights for other enterprises, they need to invest more for scientific research to improve self-competition so that they can integrate individual innovation into the collective's. So under the impetus of knowledge overflow effect and innovation driving effect, leading enterprises boost formation of innovative behavior and result in innovation and upgrading of industrial clusters.

IV. CONCLUSION

By studying the influence of leading enterprises' transformation and upgrading to industrial clusters' innovation and upgrading, we learned that the promotion of industrial upgrading is a paramount precondition to boost industrial clusters' innovation and upgrading. One way to improve cluster market competitiveness or reverse the declining tendency is promoting leading enterprises' innovation and upgrading. Meanwhile, we realized that flowers leading enterprises are only getting started in Yunnan. Some of them have new products and proprietary intellectual property rights, but their market shares are very little. Hence, these enterprises' future development needs support from all sides. From the view of government, it must increase the policy support dynamics, build the good innovative environment, invest special fund to research, promote cooperation between universities, scientific research institution and enterprises, cause to build up partnership. From the view of leading enterprises, it had to follow a clear development target, expand by new products or technologies, take full advantage of the policy support dynamics, pay more attention to encourage people with high-tech skills, strengthen cooperation with flowers' scientific research institute and universities, reduce risk and cultivate the high-tech talents who can meet the requirement of enterprise.

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