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# System Schema Analysis of County Economy Talents Shortages Based on the Perspective of Returning-home Entrepreneurship

TU Guo-ping, XU Fen\*

Department of Management Science, Nanchang University, Nanchang 330031, China

**Abstract** According to the discussion of domestic scholars on county talents, we know that the researches concerning county human resources mainly focus on discussing the problems such as the total amount, distribution, quality and introduction of county talents though the analysis of coordination between talents and county economic development, and the research of relationship between industry adjustment and talents need. However, there have no relevant documents about the analysis and discussion of county talents problems based on system schema theory. In view of this reality, on the basis of the introduction of the system schema theory propounded by management guru Peter Senge, we conduct the feedback schema analysis of the restricted factors of talents shortages during county economic development; establish the growth limits schema of county talents system; analyze the functioning mechanism of the total amount, distribution, quality and introduction of county talents on the development of county economy; discuss the relationship between the individual quality, social relation and emotional need of returning-home start-up, and talents resource shortage; propose the countermeasures and suggestions to mitigate the shortage of county talents, in order to optimize the allocation of county human resources, and promote the county's economic development.

**Key words** County economy, Growth limits schema, Human resource shortage, Returning-home entrepreneurship, China

The United Nations Development Program has noted that 75% of a country's GDP depends on human resources, 25% on capital resources. According to statistics of World Bank, 64% of the world's wealth is human capital. Talent has become the most important and valuable resource to promote economic and social development of a county. And the quantity and quality of talents become the key factors of determining economic growth and social development. Talents resource has been the most active and important element among production factors. If a region wants development priorities, it must have profuse talents resources. As a matter of fact, the discussions concerning county talents have been more and more meticulous and detailed.

Through the research of the status quo of talents in Hanshou County, and according to the talent problems such as the irrational talent structure, low income, unsound talent management system and imperfect competition incentive system, Liu Wenhui<sup>[1]</sup> uses the SWOT tool to analyze merits and demerits, and predict the talents need in the future. According to the problems such as the shortage of newly emerging force in talents team in underdeveloped regions, the contradiction between the graduates' job-seeking opportunity and jobs offered by society, Li Daguang<sup>[2]</sup> selects 10 counties in the eastern and western Jilin Province as sample, to put forward overall design and special countermeasures.

In view of the status quo of the critical shortage of total

amount of talents, uneven distribution state, inferior level and irrational structure, unsatisfactory matched system of introduction, development and use, and bad work environment, Zuo Leilei, Zhou Zhihong<sup>[3]</sup> put forward talents support system of county economic development, and discuss how to build effective talents support system with high pertinency in compliance with the status quo and feature of Feixi County economic development<sup>[3]</sup>. According to the theoretical and empirical analysis of the mutual relationship between county economic development and talents support system, Fei Weizhong has researched the root cause of the dramatic county economic development as well as the status quo of the talents resources and talents support system in county areas, and put forward a set of support system comprising introduction of talents, retention of talents, training of talents and talents reserve, so as to introduce, retain and use talents ultimately<sup>[4]</sup>.

From the perspective of coordination of talents structure and economic growth, Li Chunping deduces that the proportion of talents in the primary and secondary industries is low; the quantity of industrial senior technicians, technological personnel and enterprise management talents, and marketing talents, is so small; the proportion of talents in comprehensive technological service industry, party and government organizations, social organizations is relatively high. He poses that we should nurture some agricultural technology personnel and agricultural management talents appropriately; give priority to the nurture of a batch of industrial senior technicians, technological personnel and enterprise management talents, and marketing talents; exert fully the role of the talents in government offices and public affairs in enhancement of the social progress<sup>[5]</sup>. Liu Hui discus-

ses the new concept, new thought, new system, and new countermeasures on nurturing talents, attracting talents, retaining talents, and making use of talents through the analysis of relationship between industrial structure adjustment and talents need<sup>[6]</sup>.

By the analysis of the cases of returning-home entrepreneurs, Liu Guangming holds that returning-home entrepreneurs always are those with abundant accumulation of knowledge and skill, and strong subjective initiative. Those successful returning-home entrepreneurs have the ability of operation management and information collection<sup>[7]</sup>. Through the analysis of returning-home entrepreneurship risk, Zhuang Daoyuan has analyzed the risk of capital, policy, operation and technology, and put forward the ways of broadening financing channel, institutionalizing preferential policy, offering entrepreneurship training and technological service, and establishing entrepreneur trade association<sup>[8]</sup>. Hanjun *et al.* analyze the difficulties confronted by returning-home migrant workers on land use, financing, and relevant preferential policy. They pose that we should pay attention to the returning-home migrant workers' entrepreneurship strategically; strengthen service awareness and management of returning-home migrant workers' entrepreneurship; increase the financial and revenue support for returning-home migrant workers' entrepreneurship; improve financial service and offer credit support for returning-home migrant workers' entrepreneurship; build and consolidate the instruction and training service system of returning-home migrant workers' entrepreneurship; give priority to solution of land use problems of returning-home migrant workers' entrepreneurship; reinforce the guidance of returning-home migrant workers' entrepreneurship<sup>[9]</sup>.

From the aforesaid documents, it can be seen that according to the discussion of domestic scholars on county talents, we know that the researches concerning county human resources mainly focus on discussing the problems such as the total amount, distribution, quality and introduction of county talents through the analysis of coordination between talents and county economic development, and the research of relationship between industry adjustment and talents need. However, there are no relevant documents about the analysis and discussion of county talents problems based on system schema theory. In view of this reality, on the basis of the introduction of the system schema theory propounded by management guru Peter Senge, we conduct the feedback schema analysis of the restricted factors of talents shortages during county economic development, and propose the countermeasures and suggestions to mitigate the shortage of county talents.

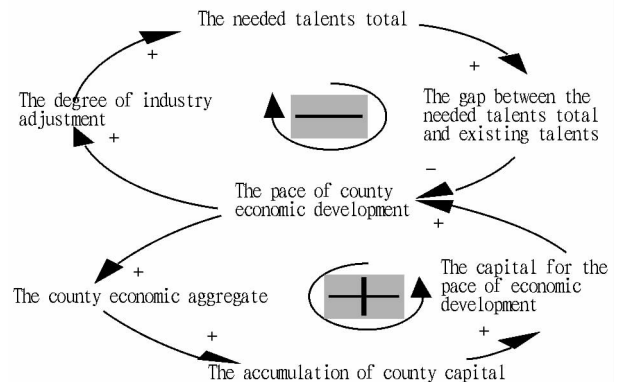
## 1 The talents restriction schema analysis during county economic development

**1.1 System Schema Theory** In *The Fifth Discipline: The art and practice of the learning organization*<sup>[10]</sup>, management guru Peter Senge describes nine kinds of schemas concerning modern management system. He regards the schema as the main tool to analyze dynamic and complicated management problem, and defines the system schema as positive and nega-

tive feedback loop and delay system model. Growth limits schema, a growth model, is caused by positive feedback loop. In the process of the expeditious growth of system, the loop will be strengthened, and the growth will be faster. However, the process of system growth is bound to be hampered by various restrictions and bottleneck, in that the strengthened loop of system can cause the fast growth, but at the same time start the regulatory loop, resulting in inhibited growth, that is to say, the negative feedback loop starts to work, leading to the slow-down, suspension, and even retrogression of system<sup>[11]</sup>.

**1.2 The talents restriction schema analysis during county economic development** County economic development tends to bear the impact of its own development. In a period, the more the total of economic development is, the more capital it can offer for the county economic development. Consequently, the economy will be greatly boosted, offering more capital for the development of next period. As a result, the development of next period is bound to be faster, resulting in positive and negative feedback loop during the county economic development.

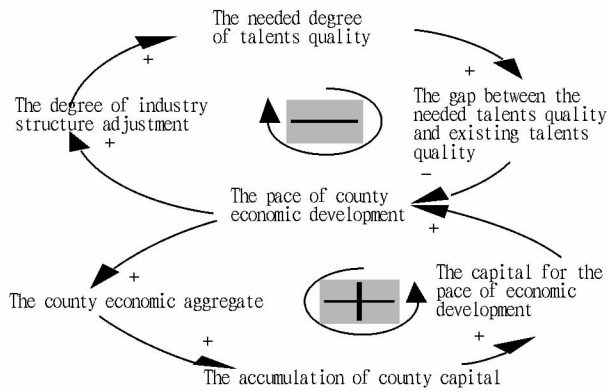
**1.2.1 Talents total restriction.** County's economic development needs the talents' support. The faster the County's economy develops, the more opportunities it can offer for enterprise's expanded reproduction. So the adjustment and update of industry will entail the increased jobs for expanded reproduction talents. However, due to the limited quantity of talents, it is likely to cause the severe contradiction between supply and demand of talents, and inhibit the further development of county. Therefore, the talents total restriction schema of county economy is formed (Fig. 1).



**Fig. 1 Talents total restriction schema**

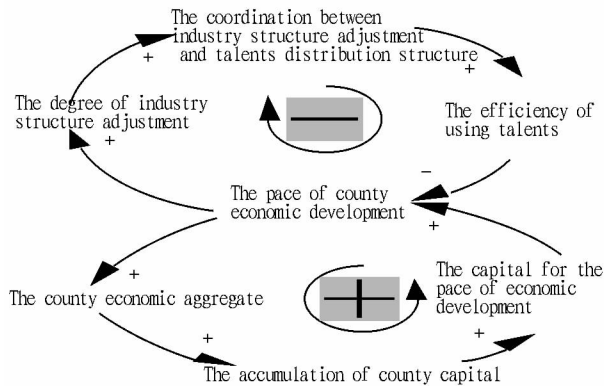
**1.2.2 Talents quality restriction.** With the rapid development of economy, industry is facing new challenges, industrial restructurings and enterprise upgradings. Accompanied by more industrial restructurings and enterprise upgradings, the requirements of talents' quality become greatly higher. However, the update of talents' quality lags behind the industry update, which causes the increased gap between the existing talents' quality and the talents' quality that is needed. After a period of delay, this will inhibit the further economic development, forming the talents quality restriction schema of county economy (Fig. 2).

**1.2.3 Talents distribution structure restriction.** As the econo-

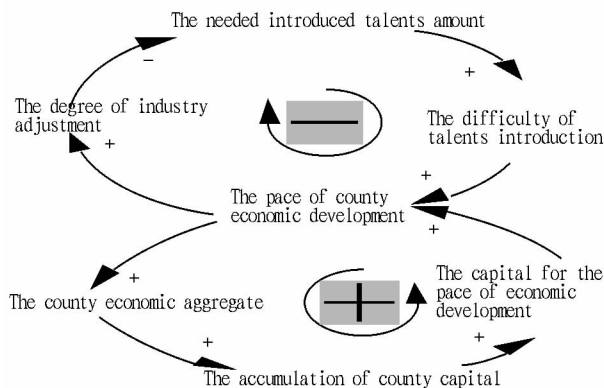


**Fig. 2 Talents quality restriction schema**

my continues to grow, industry updates become faster. The continuous industry adjustment needs the corresponding talents distribution structure while the updates of existing talents distribution structure lag behind the industry structure adjustment. The outdated talents distribution structure causes the poor coordination between industry structure adjustment and talents distribution structure, low efficiency of using talents, which will inhibit the role played by talents in increasing county economic development. The schema of talents distribution structure restriction of county economic development can be seen in Fig. 3.



**Fig. 3 Talents distribution structure restriction**



**Fig. 4 Talents introduction restriction**

**1.2.4 Talents introduction restriction.** As the economy continues to grow, industry updates become faster, which entails the increased talents. But the existing talents can not meet the

need in reality. Due to the differences in terms of county economy, policy and service, it is difficult to introduce talents, resulting in the imbalance between quantity of introduced talents and economic development, which will further inhibit economic development. The talents introduction restriction schema of county economic development can be seen in Fig. 4.

Based on the analysis of previous growth limits schema, talents shortages system schema is obtained (Fig. 5), from which we know the county's economy is restricted by the talents total, talents quality, talents distribution structure and talents introduction mechanism. Thus we can know clearly the mechanism of talents restricting county economic development.

## 2 Countermeasures and suggestions

Currently, the measures of easing shortages are mainly developing elementary education, improving the quality of talents, increasing training investment, improving the training mechanism, opening up a variety of ways to introduce talents, establishing intelligence "green passage", and formulating relevant preferential policies to attract talents. This research mainly analyzes the impact of returning-home entrepreneurs on county talents shortages. We should solve this restriction according to feedback dynamic complicated analytical theory. Principle of eliminating the growth limits is not to propel the positive feedback, but to try to mitigate the impact of negative feedback. Introduction of the migrant workers can ease talents shortages.

Returning-home entrepreneurship can be a rational selection after comparison by migrant workers between the investment cost and profit in output areas and input areas. Influenced by many factors such as individual, family and macro-economy, most of the returning-home entrepreneurs choose to start business in hometown. The factor of family is the most important factor. The household registration system and multi-layered labor market are the institution factors making factors of the migrant workers' individual and family function. The perfection of the infrastructure in output areas and expansion of the market scale, are beneficial to returning-home entrepreneurs. In addition, that government attaches importance to returning-home entrepreneurship and creates good conditions are also helpful. Although returning-home entrepreneurship can not thoroughly solve the county talents shortages, it can alleviate, to some extent, the talents total restriction, quality restriction, distribution structure restriction and introduction restriction. The impact of returning-home entrepreneurship on easing county talents shortages can be shown in Fig. 6.

**2.1 Ease the talents total restriction** County is the basic level of China's political power structure, whose economic strength, and geographical location can not compare with that of the large and medium cities, leading to the weaker cohesion of talents. In the meanwhile, the perfection of market economic system, the strengthened marketization of talents resources allocation, the faster flow of talents into large and medium-sized cities, and the more frequent talents flow, are responsible for the instable county talents team. The quantity of county talents is far

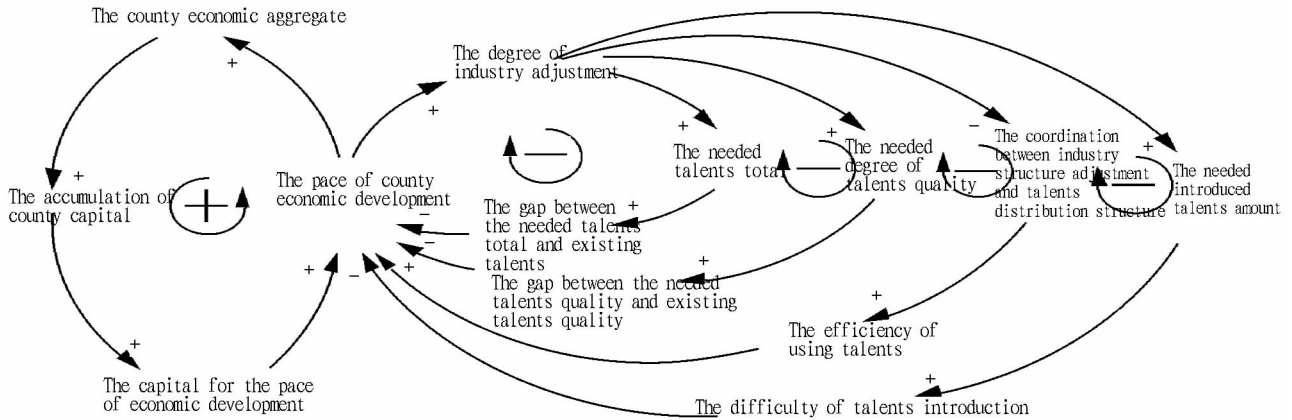


Fig.5 Talent shortage system

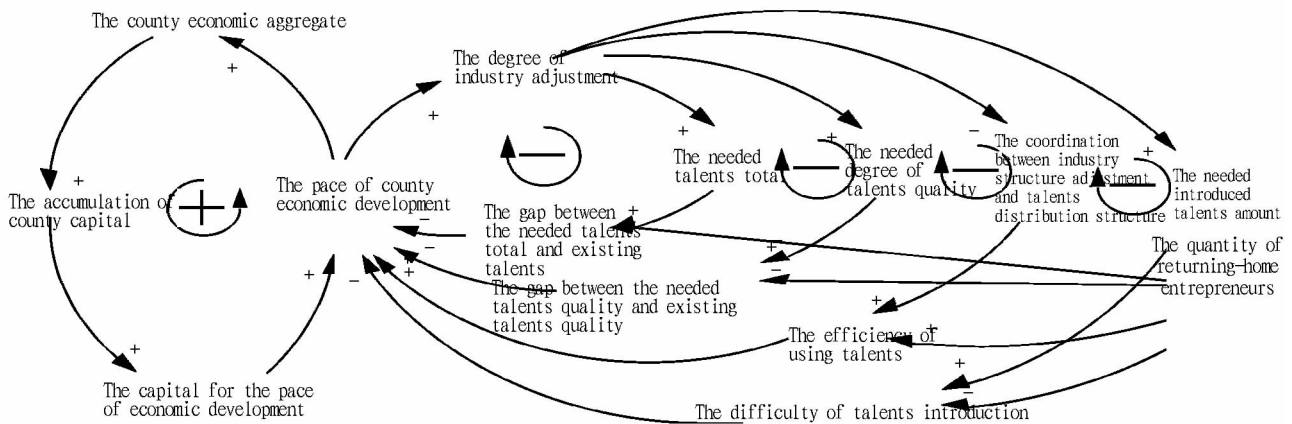


Fig.6 The impact of returning-home entrepreneurship on talent shortage system

smaller than the quantity of city talents, so the talents total can not meet the needs of county economic development. In addition, there is a shortage of qualified enterprise operators, senior managers, and especially the enterprisers. However, most of the returning-home entrepreneurs with good vision, from developed coastal areas or large and medium-sized cities, are equipped with the ability of collecting information and experience of management, and meet the requirements of county enterprise management. Besides, returning-home entrepreneurs' affection for hometown, drives them to return home starting business actively and serving for hometown's construction. As a matter of fact, returning-home entrepreneurs have reinvigorated the county talents team, eased the talents total restriction, stabilized talents team to some extent, and inhibited the fast talents drain.

**2.2 Ease talents quality restriction** Influenced by the sluggish development of county economy, on one hand, enterprise does not pay enough attention to the quality of various kinds of talents, and does not predict the prospective benefit. Most of the recruited workers with less schooling and low quality, from rural areas, have not received the professional, systematic, and formal training. On the other hand, the limited capital and resources of training, can not meet the needs of various trainings, and elevate the talents quality. Even if there are some related trainings and services, improvement of talents quality also needs long training period. However, the returning-

home entrepreneurs depend on the exterior training educational environment. Some enterprises spontaneously provide the training of relevant vocational skills and enterprise culture. Meanwhile, developed cities can afford many opportunities of study and training, and good knowledge environment beneficial to the elevation of individual quality. Returning-home entrepreneurship, not only can pare down the outlay of relevant training, but can obviate the confusion of long period training, due to entrepreneurs' strong ability to complete work. As a consequence, their return can propel the elevation of county talents quality.

**2.3 Ease talents distribution structure restriction** With the county economic restructuring, shortcomings of shortage and irrational structure of county talents have become increasingly prominent. Firstly, the talents structure, still merely suitable for the traditional industry, can not adapt to the requirements of county economic development. There is a shortage of new technology professional talents, and versatile and practical management talents universally. Secondly, high-level talents are rare. The proportion of the high-level talents is small in county talents structure, and the versatile and the practical management talents are scanty. The lack of high-level talents enervates the competitiveness of county economy. Thirdly, the talents distribution is irrational. Most of the professional technology personnel in county, concentrate in state-owned enterprises and public institutions. Public institutions of education

and sanitation even have more than half of the county talents, while private enterprises have less, which thwarts the non-public sectors of the economy. Returning-home entrepreneurs build the interpersonal relationships network in the city characterized by primary relationships, then based on this, they develop the secondary relationships focusing on business relationships, in order to obtain more resources. Therefore, we should delve into the business that we are engaging in, know the development trend of trade, and use the technology proficiently in the corresponding trades. In addition, we should integrate production factors such as capital, technology, and information, advanced idea, and hometown resources; start various kinds of joint or wholly owned enterprises; not only exert key role and aptitude of leadership and management, but also make the talents flow into private enterprise through newly created enterprises, in order to propel private enterprise development and ease talents distribution structure restriction.

**2.4 Ease talents introduction restriction** In recent years, some counties have also laid down a variety of preferential policies, adopted a number of ways, used various forms, to introduce talents, and achieve good results. But in general, due to various restrictions of objective condition, together with scanty openness of county, and lagged reform of personnel system, the task of introducing talents in county is still painstaking. But Chinese people have the unique affection for hometown hidden in their inner world. In fact, hometown is their destination, and impetus which ignites their passion for starting business. In addition, when some factors, like education or life, get no satisfaction, it will make them go home to start business. For example, some migrant workers with no registered residence in local areas, can not share the same medical service, the retirement pension system, and children's education public service, as their counterpart in city. Encouraging returning-home entrepreneurship, not only can comply with the requirements of county economic development, meet various needs of returning-home entrepreneurs, curtail the cost of introducing talents, and moderate difficulty of talents introduction, but can attract many high-quality talents, and ease the talents introduction restriction of county economic development.

### 3 Conclusion

The management, use, and nurturing of talent system directly affect the pace of economic development. Through the growth limits schema of county talents system, we analyze the functioning mechanism of the total amount, distribution, quality and introduction of county talents on the development of county economy. Returning-home entrepreneurs are regarded as special human resources. Returning-home entrepreneurship can not only realize the self-value, but also can solve the problems of personal sentiment, children's education, and support for the elderly. Most importantly, it eases the shortage of human resources in county, and promotes the county economic development.

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